

Service Manual



Colour Television

TX-28XD3F TX-25XD3F

EURO-2M Chassis

SPECIFICATIONS

(Information in brackets {} refer to TX-25XD3F)

| | |
|------------------------------------|--|
| Power Source : | 220-240V AC, 50Hz |
| Power Consumption : | 96W, {94W} |
| Standby Power Consumption : | 1W |
| Aerial Impedance : | 75Ω unbalanced, Coaxial Type |
| Receiving System : | PAL-B/G, H, PAL 60, SECAM B/G, L/L' MNTSC, NTSC (AV Only) |
| Receiving Channels : | |
| VHF E2 — E12 | VHF H1 — H2 (ITALY) |
| VHF A — H (ITALY) | UHF E21 — E69 |
| CATV (S01 — S05) | CATV S1 — S10 (M1 — M10) |
| CATV S11 — S20 (U1 — U10) | CATV S21 — S41 (HYPERBAND) |
| Intermediate Frequency : | |
| Video | 38.9 MHz, 34MHz |
| Sound | 33.4 MHz, 33.16 MHz 32.4 MHz, 33.05MHz, 40.4MHz 34.47 MHz, 34.5 MHz, 34.65 MHz |
| Colour | |
| Video / Audio Terminals : | |
| AUDIO MONITOR OUT | Audio(RCA x2) 500mV rms, 1kΩ |
| AV1 IN | Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 10kΩ RGB (21 pin) |
| AV1 OUT | Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ |
| AV2 IN | Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 10kΩ S-Video IN Y : 1V p-p 75Ω (21 pin) C : 0.3V p-p 75Ω |
| AV2 OUT | Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ |
| AV3 IN | Audio (RCA x2) 500mV rms, 10kΩ Video (RCA x 1) 1V p-p 75Ω |
| High Voltage : | 28kV ± 1kV (zero beam current) |
| Picture Tube : | A66ECF50X32 66 cm {A59ECF50X32 59 cm} |
| Audio Output : | |
| Speaker | 2 x 20 W (Music Power) 8 Ω Impedance |
| Headphones | 8 Ω Impedance |
| Accessories supplied : | Remote Control 2 x R6 (UM3) Batteries |
| Dimensions : | |
| Height : | 596.5 mm {550 mm} |
| Width : | 778 mm {730 mm} |
| Depth : | 481.5 mm {479 mm} |
| Net Weight : | 34kg {31 kg} |

Specifications are subject to change without notice.
Weight and dimensions shown are approximate.

TECHNISCHE DATEN

(Werte in klammern gelten {} nur für TX-25XD3F)

| | |
|------------------------------------|--|
| Netzspannung : | 220-240V AC, 50Hz |
| Leistungsaufnahme : | 96W, {94W} |
| Standby Leistungsaufnahme : | 1W |
| Antennenimpedanz : | 75Ω asymmetrisch, Koaxial — Typ |
| Empfangssystem : | PAL-B/G, H, PAL 60, SECAM B/G, L/L' MNTSC, NTSC (nur AV Eingang) |
| Empfangsbereiche : | |
| VHF E2 — E12 | VHF H1 — H2 (ITALY) |
| VHF A — H (ITALY) | UHF E21 — E69 |
| CATV (S01 — S05) | CATV S1 — S10 (M1 — M10) |
| CATV S11 — S20 (U1 — U10) | CATV S21 — S41 (HYPERBAND) |
| Zwischenfrequenz : | |
| Video | 38.9 MHz, 34MHz |
| Sound | 33.4 MHz, 33.16 MHz 32.4 MHz, 33.05MHz, 40.4MHz 34.47 MHz, 34.5 MHz, 34.65 MHz |
| Colour | |
| Video / Audio Anschlüsse : | |
| AUDIO MONITOR OUT | Audio(RCA x2) 500mV rms, 1kΩ |
| AV1 EINGANG | Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 10kΩ RGB (21 pin) |
| AV1 AUSGANG | Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ |
| AV2 EINGANG | Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 10kΩ S-Video IN Y : 1V p-p 75Ω (21 pin) C : 0.3V p-p 75Ω |
| AV2 AUSGANG | Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ |
| AV3 EINGANG | Audio (RCA x2) 500mV rms, 10kΩ Video (RCA x 1) 1V p-p 75Ω |
| Hochspannung : | 28kV ± 1kV (bei Nullstrahlstrom) |
| Bildrohre : | A66ECF50X32 66 cm {A59ECF50X32 59 cm} |
| Ton Ausgangsleistung : | 2 x 20 W (Musikleistung) |
| Lautsprecher | 8 Ω Impedanz |
| Kopfhörer | 8 Ω Impedanz |
| Mittelg. Zubehör : | Fernbedienung 2 x R6 (UM3) Batterien |
| Abmessungen : | |
| Höhe : | 596.5 mm {550 mm} |
| Breite : | 778 mm {730 mm} |
| Tiefe : | 481.5 mm {479 mm} |
| Gewicht : | 34kg {31kg} |

Änderungen der technischen Daten vorbehalten.
Gewichte und Abmessungen sind Näherungsangaben.

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SAFETY PRECAUTIONS

GENERAL GUIDE LINES

1. It is advisable to insert an isolation transformer in the AC supply before servicing a hot chassis.
2. When servicing, observe the original lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
3. After servicing, see that all the protective devices such as insulation barriers, insulation papers, shields and isolation R—C combinations are correctly installed.
4. When the receiver is not being used for a long period of time, unplug the power cord from the AC outlet.
5. Potentials as high as 29kV are present when this receiver is in operation. Operation of the receiver without the rear cover involves the danger of a shock hazard from the receiver power supply. Servicing should not be attempted by anyone who is not familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the picture to the chassis before handling the tube.
6. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs of the plug.
2. Turn on the receiver's power switch.
3. Measure the resistance value with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the receiver, such as screw heads, aerials, connectors, control shafts etc. When the exposed metallic part has a return path to the chassis the reading should be between 4M ohm and 20M ohm. When the exposed metal does not have a return path to the chassis the reading must be infinite.

INHALT

| |
|--------------------------------|
| SICHERHEITSVORKEHRUNGEN |
| SERVICE HINWEISE |
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SICHERHEITSVORKEHRUNGEN

ALLGEMEINE RICHTLINIEN

1. Es ist empfehlenswert einen Trenntransformator in die Stromversorgung zu schalten, bevor Reparaturen an einem Gerät vorgenommen werden, dessen Chassis unter Spannung steht.
2. Bei der Durchführung von Servicearbeiten dürfen die ursprünglichen Kabelanschlüsse nicht vertauscht werden. Dies gilt insbesondere für die Anschlüsse im Hochspannungsteil. Hat sich ein Kurzschluß ereignet, dann sind alle Teile, an denen Spuren von Überhitzung sichtbar sind, auszuwechseln.
3. Nach Beenden der Servicearbeiten ist sicherzustellen, daß alle Sicherheitsvorrichtungen, wie Isolationsstege, Isolationspapiere, Abschirmungen und Isolations R—C Glieder wieder richtig eingesetzt sind.
4. Wenn der Fernseher während längerer Zeit nicht in Betrieb gesetzt wird, sollte der Netzstecker aus der Netzsteckdose gezogen werden.
5. Im Betrieb sind Spannungen bis zu 29kV in diesem Gerät vorhanden. Die Inbetriebnahme des Fernsehers ohne aufgesetzte Rückwand bringt die Gefahr eines elektrischen Schlages von der Fernseher — Stromversorgung mit sich. Servicearbeiten sollten daher auch nie durch Personen versucht werden, die nicht in vollem Umfang mit den Sicherheitsvorkehrungen beim Umgang mit Hochspannungsgeräten vertraut sind. Vor der Handhabung mit der Bildröhre ist die Anode der Bildröhre immer an dem Empfängerchassis zu entladen.
6. Nach Beenden der Servicearbeiten sind die folgenden Kriechstrom—Prüfungen durchzuführen, um den Kunden vor der Gefahr eines elektrischen Schlages zu schützen.

MESSUNG DES ISOLATIONSWIDERSTANDES IM ABGESCHALTETEN ZUSTAND

1. Den Netzstecker aus der Netzsteckdose ziehen und die beiden Steckerstifte kurzschließen.
2. Den Geräteschalter des Fernsehgerätes einschalten.
3. Mit einem Ohmmeter den Widerstandswert zwischen dem überbrückten Netzkabelstecker und jedem zugänglichen Metallteil am Gehäuse des Fernsehgerätes, wie Schraubenköpfe, Antennen, Achsen der Regler, Griffassungen usw. messen. Wenn ein zugängliches Metallteil keine Rückleitung zum Chassis hat, muß die Anzeige unendlich betragen.

LEAKAGE CURRENT HOT CHECK

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 2k Ω 10W resistor in series with an exposed metallic part on the receiver and an earth such as a water pipe.
3. Use an AC voltmeter with high impedance to measure the potential across the resistor.
4. Check each exposed Metallic part and check the voltage at each point.
5. Reverse the AC plug at the outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 1.4 Vrms. In case a measurement is outside the limits specified, there is a possibility of a shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

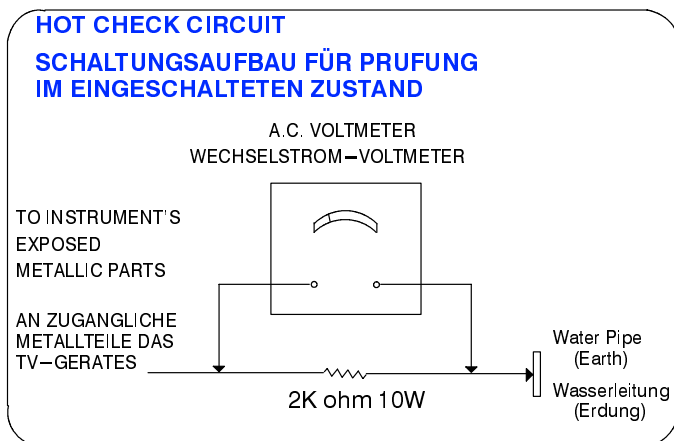


Fig.1.
Abb.1.

X-RADIATION WARNING

1. The potential sources of X-Radiation in TV sets are the high voltage section and the picture tube.
2. When using a picture tube test jig for service ensure that the jig is capable of handling 29kV without causing X-Radiation.

NOTE : It is important to use an accurate periodically calibrated high voltage meter

1. Set the brightness to minimum.
2. Measure the high voltage. The meter should indicate 28kV \pm 1kV if the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.
3. To prevent any X-Radiation possibility, it is essential to use the specified tube.

MESSUNG DES KRIECHSTROMS IM EINGESCHALTETEN ZUSTAND

1. Den Netzstecker direkt in eine Netsteckdose stecken. Für diese Messung keinen Trenntransformator verwenden.
2. Einen 2k Ω / 10W-Widerstand in Serie mit einem von außen zugänglichen Metallteil am Fernsehgerät und einer guten, Erdung z.B Wasserleitung, anschließen.
3. Ein Wechselstrom-Voltmeter mit einem Meßbereich von 1000 Ohm.Volt oder größer verwenden, um die Spannung über den Widerstand zu messen.
4. Jedes zugängliche Metallteil prüfen, und an jedem Punkt dies Spannung messen.
5. Den Netzstecker umgekehrt in die Steckdose stecken und jede der obigen Messungen wiederholen.
6. Die Spannung darf an keinem der Punkte 1.4V eff. überschreiten. Wird dieser Wert nicht eingehalten, besteht die Gefahr eines elektrischen Schlages, und das Fernsehgerät sollte daher repariert und nachgeprüft werden, bevor es an den Kunden zurückgegeben wird.

RÖNTGENSTRAHLUNG ACHTUNG :

1. Potentielle Quellen von Röntgenstrahlung in Fernsehgeräten sind das Hochspannungsteil und die Bildröhre.
2. Bei Verwendung eines Bildröhren-Prüfgerätes für den Service ist sicherzustellen, daß es für die Belastung von 29kV geeignet ist, ohne daß eine Röntgenstrahlung verursacht wird.

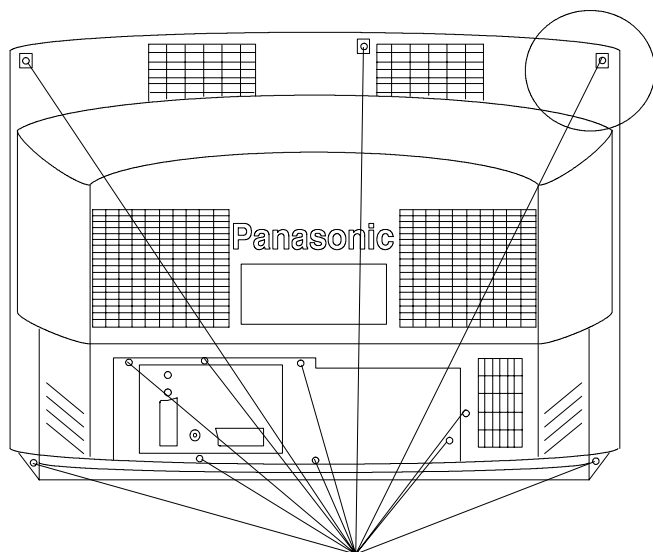
ANMERKUNG : Es ist wichtig, daß ein präzises, regelmäßig geprüftes Voltmeter verwendet wird.

1. Helligkeit auf Minimum stellen.
2. Die Hochspannung messen. Die Anzeige des Instrumentes sollte 28kV \pm 1kV Falls die Anzeige diese Toleranzgrenzen überschreitet, ist die sofortige Behebung nötig, um die Möglichkeit vorzeitigen Komponentenausfalls zu verhüten.
3. Um die Möglichkeit von Röntgenstrahlung zu begrenzen, ist es wichtig, daß nur die vorgeschriebene Bildröhre verwendet wird.

SERVICE HINTS

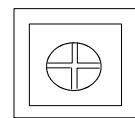
HOW TO REMOVE THE REAR COVER

1. Remove the 12 screws (A) as shown in **Fig.2/Fig.3.**



SCREWS A
SCHRAUBEN A

Fig. 2.
Abb. 2.



SCREW
SCHRAUBEN

Fig. 3.
Abb. 3.

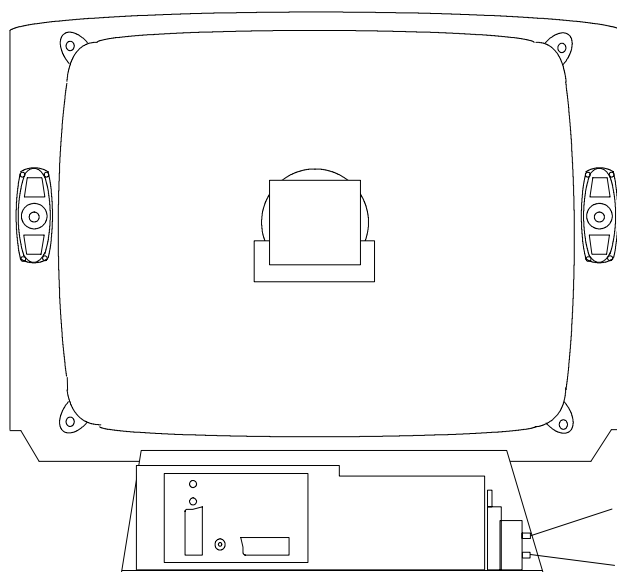
SERVICE HINWEISE

ENTFERNEN DER GERÄTERÜCKWAND

1. Die 12 Schrauben (A) entfernen, siehe **Abb.2/Abb.3.**

LOCATION OF CONTROLS

LAGE DER EINSTELLREGLER



E P.C.B.

Fig. 4.
Abb. 4.

FOCUS
FOKUSREGLER

SCREEN
SCHIRMGITTERREGLER

SERVICE MODE

The remote control is used for entering and storing adjustments, with the exception of cut-off adjustments which must always be done prior to service adjustment. Perform adjustments in accordance with screen display. The display on the screen also specifies the CCU variants as well as the approx. setting values. The adjustment sequence for the service mode is indicated below.

1. Set the Bass to maximum position, set the Treble to minimum position, press the Reveal button on the remote control and at the same time press the Volume down on the customer controls at the front of the TV, this will place the TV into the Service Mode.
2. Press the RED / GREEN buttons to step down / up through the functions.
3. Press the YELLOW / BLUE buttons to alter the function values.
4. Press the STORE button on the preset panel after each adjustment has been made to store the required values.
5. To exit the Service Mode press the Normalisation button.

NOTE: This TV also has the option of using a Memory Pack which enables you to copy the preset TV channels and analogue levels into the Memory Pack and then upload them onto another EURO-2M TV set.

USING THE MEMORY PACK

TV to Memory Pack process

1. Plug the memory pack into the lower of the two 21 pin terminals at the back of the TV and switch the TV on. If the TV has only one 21 pin connector then this will be able to accept the memory pack.
2. Go into the Service Mode as explained above. The screen will show:—

Program
External>>TV

3. Press the blue button on the remote control. The screen will show:—

Program
TV>>External

4. Press the STORE button on the TV. The screen will show:—

Storing

5. All the tuning information stored inside the TV will now be transferred to the Memory Pack. This process will take 2–3 minutes to complete and when finished the screen will show:—

OK!

Memory Pack to TV Process

1. Plug the memory pack into the lower of the two 21 pin terminals at the back of the TV and switch the TV on. If the TV has only one 21 pin connector then this will be able to accept the memory pack.
2. Go into the Service Mode as explained above. The screen will show:—

Program
External>>TV

3. Press the STORE button on the TV. The screen will show:—

Loading

4. All the tuning information stored inside the Memory Pack will now be transferred to the TV. This process will take 2–3 minutes to complete and when finished the screen will show:—

OK!

5. The tuning information from the Memory Pack has now been copied into the TV
6. To exit from the Service Mode switch off the TV.
7. The process has now been completed and the Memory Pack can now be removed.

Errors

If an error occurs while using the Memory Pack the TV will detect this and the screen will show:—

Program
Error!

If this happens then switch off the TV and repeat the process that was being used. If the errors continue to occur then check the connectors between the TV and the memory pack and check the 9V battery inside the memory pack.

ABGLEICHVERFAHREN

Die Fernbedienung dient zum Eingeben und Abspeichern der Einstellwerte, mit Ausnahme der Sperrpunkteinstellung, die grundsätzlich vor den hier beschriebenen Einstellungen vorgenommen werden muss. Die Einstellung erfolgt entsprechend dem Bildschirm—Display. Auf dem Bildschirm—Display erscheinen auch die CCU—Varianten sowie die ungefähren Einstellwerte. Die Einstellfolge für den Service—Modus ist nachstehend beschrieben.

1. Um in den Service—Mode zu gelangen, gehen sie bitte wie folgt vor.
 - a) Stellen sie im Toneinstellungs—Menü die Bässe auf Maximum und die Höhen auf Minimum.
 - b) Halten sie die REVEAL—Taste auf der Fernbedienung gedrückt und drücken zusätzlich die Taste —/v im Bedienteil des TV—Gerätes. Auf dem Bildschirm erscheint die entsprechende Anzeige für den Service—Mode.
2. Die einzelnen Funktionen mit Hilfe der ROTEN und GRÜNEN Taste anwählen.
3. Mit der GELBEN und BLAUEN Taste die Werte der einzelnen Funktionen ändern.
4. Nach jeder Einstellung die Taste STR auf der Fernbedienung oder am Bedienfeld drücken, um die geänderten Werte abzuspeichern.
5. Zum Verlassen des Service—Modus die "N"—Taste auf der Fernbedienung drücken

HINWEIS: Dieses FS—Gerät bietet auch die Möglichkeit eines Memory Pack, mit dem Sie die gewählten Fernsehkanäle abspeichern und auf jedes beliebige EURO2M FS—Gerät umkopieren können.

Kopieren der Einstelldaten vom FS—Gerät in das Memory Pack

1. Das Memory Pack in die AV2—Buchse an der Rückseite des FS—Gerätes stecken und das Gerät einschalten.
2. Wie schon oben beschrieben auf Service—Modus umschalten. Auf dem Bildschirm erscheint:

Program
External>>TV

3. Nun die blaue Taste an der Fernbedienung betätigen. Auf dem Bildschirm erscheint:

Program
TV>>External

4. Die Taste STORE am Fernseher drücken. Der Bildschirm meldet nun:

Storing

5. Die im FS—Gerät abgespeicherten Kanal—Einstelldaten werden nun in das Memory Pack überspielt. bei abgeschlossener Datenübertragung meldet der Bildschirm:

OK!

Kopieren der Einstelldaten vom Memory Pack in das FS—Gerät

1. Das Memory Pack in die AV2—Buchse an der Rückseite des FS—Gerätes stecken und das Gerät einschalten.
2. Wie schon oben beschrieben auf Service—Modus umschalten. Auf dem Bildschirm erscheint:

Program
External>>TV

3. Die Taste STORE am Fernseher drücken. Der Bildschirm meldet nun:

Loading

4. Die im Memory Pack abgespeicherten Einstelldaten werden nun in das FS—Gerät überspielt. bei abgeschlossener Datenübertragung meldet der Bildschirm:

OK!

5. Die Kanal—Einstelldaten sind damit vom Memory Pack in das FS—Gerät überspielt.
6. Zum Verlassen des Service—Modus die "N"—Taste auf der Fernbedienung drücken
7. Der Kopiervorgang ist somit abgeschlossen, und das Memory Pack kann von der Steckerleiste abgezogen werden.

Fehler

Falls beim Gebrauch des Memory Packs Fehler auftreten, zeigt das FS—Gerät dies auf dem Bildschirm mit der folgenden Meldung an:

Program
Error!

In diesem Fall muss der Service—Modus durch Drücken der "N"—Taste auf der Fernbedienung verlassen und anschliessend der Vorgang wiederholt werden. Falls weiterhin Fehlermeldungen erscheinen, müssen die Anschlusskontakte zwischen FS—Gerät und Memory Pack sowie die 9V Batterie im Memory Pack kontrolliert werden.

ADJUSTMENT PROCEDURE

| Item/Preparation | Adjustments |
|---|---|
| +B SET-UP 1. Receive a test pattern 2. Set the controls: Brightness Minimum Contrast Minimum Volume Minimum | 1. Set the +B voltage up as follows: Adjust R811 so that B2 shows $147V \pm 1V$ 2. Confirm the following voltages. B1 200 \pm 10V B6 12 \pm 0.5V B3 27 \pm 1V B7 5 + 0.1/-0.25V B4 41 \pm 1V B8 5 \pm 0.25V B5 15.5 \pm 1V U33 31 \pm 1V |
| RF AGC 1. Receive a test pattern. 2. Connect an oscilloscope between the tuner RF AGC and ground. 3. Set the oscilloscope gain range to 1V/div. | 1. Check that the noise becomes large when the RF AGC VR R126 is turned counterclockwise. After the check turn it clockwise. 2. Gradually turn the RF AGC VR anti-clockwise, and set the RF AGC VR to the point where the RF AGC voltage is just falling to a point where this voltage drops by 0.2V from the maximum value. |
| CUT OFF 1. Receive a test pattern. 2. Degauss the tube externally. 3. Set the TV into Service Mode 1. 4. Select Cutoff DC mode. | 1. Confirm then value is 128 and select Ug2 mode noting colour with largest value. 2. Turn the screen VR until a colour reaches 20~30. 3. Connect an oscilloscope to the cathode with the biggest value colour. 4. Select Cutoff DC mode and adjust Cutoff pulse to $159V \pm 5V$. 5. Disconnect the oscilloscope and adjust the screen to whichever colour reaches 70 ± 30 first. |

ABGLEICH

| Vorbereitung | Abgleich |
|---|---|
| +B – Abgleich 1. Testbild empfangen. 2. Helligkeit auf Minimum Kontrast auf Minimum Lautstärke auf Minimum | 1. Mit R811 muß die B2 auf $147V \pm 1V$ eingestellt werden. 2. Folgende Spannungen sind zu überprüfen : B1 200 \pm 10V B6 12 \pm 0.5V B3 27 \pm 1V B7 5 + 0.1/-0.25V B4 41 \pm 1V B8 5 \pm 0.25V B5 15.5 \pm 1V U33 31 \pm 1V |
| RF AGC 1. Testbild empfangen. 2. An die Tuner RF AGC und Masse ein Oszilloskop anschließen. 3. Die Empfindlichkeit des Oszilloskopes auf 1V/div. einstellen. | 1. Wenn das Poti R126 (RF AGC) gegen den Uhrzeigersinn gedreht wird, muß das Rauschen zunehmen. 2. Das Poti R126 gegen den Uhrzeigersinn so einstellen, daß die eingestellte Spannung um 0,2V unter dem Maximalwert. |
| CUT OFF 1. Testbild empfangen. 2. Bildröhre entmagnetisieren. 3. Service-Mode 1 anwählen. 4. Im Service-Mode den Abgleichpunkt Cutoff DC-Mode wählen (14). | 1. Im Feld Cutoff DC muß der Wert 128 stehen, Im Ugz-Feld muß Farbe mit dem höchstem Wert notiert werden. 2. Mit dem Screen-Poti wird die Farbe auf 20 bis 30 eingestellt. 3. An die Kathode mit den höchsten Wert (aus Punkt 1) wird ein Oszilloskop angeschlossen. 4. Im Cutoff DC Mode wird der Cutoff-Puls auf $159V \pm 5V$ eingestellt. 5. Das Oszilloskop entfernen und im Cutoff Mode die Werte so einstellen, daß sie alle bis 70 ± 30 liegen. |

SELF CHECK

Self check is used to automatically check the Bus lines and Hexadecimal code of the TV set.

To enter the Self Check mode press Function down button, on the Preset Panel, at the same time pressing the Status button, on the Remote Control, and the screen will show: –

When exiting Self Check the customer settings will return to factory setup.

| | | | | | | | | | | | |
|----|---|----|---------------------|----|---|----|---------------------|---|---|----|---------|
| 1 | — | ok | Tuner | 11 | — | -- | Dolby IC for C/R | 21 | — | ok | P SBLED |
| 2 | — | ok | VIF | 12 | — | ok | P S MODE | 22 | — | ok | P OFF |
| 3 | — | ok | EEPROM | 13 | — | ok | P TA0 | 23 | — | ok | P DEFL |
| 4 | — | -- | Sound AV switch1 | 14 | — | ok | P TA1 | 24 | — | ok | P RAM |
| 5 | — | ok | Video AV switch1 | 15 | — | ok | P TA2 | Hex codes | | | |
| 6 | — | ok | VDP | 16 | — | ok | P TA3 | | | | |
| 7 | — | ok | TPU | 17 | — | ok | P SDA | | | | |
| 8 | — | ok | MSP | 18 | — | ok | P SCL1 | | | | |
| 9 | — | -- | Dolby Sub | 19 | — | ok | P SCL 3 | | | | |
| 10 | — | -- | Dolby IC for L/R | 20 | — | ok | P SCL4 | <div>6A</div> <div>22</div> <div>21</div> <div>94</div> <div>95</div> | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

If the CCU ports have been checked and found to be incorrect then "—" will appear in place of "OK".

SELBSTDIAGNOSE

1) Die Selbstdiagnose dient zum automatischen Prüfen der Bus-Leitungen sowie des Hexadezimalcodes des FS-Geräts. Zum Umschalten auf Selbstdiagnose nach dem Drücken der "F"-Taste die "Lautstärke Minus" Taste am Bedienfeld des FS-Geräts und gleichzeitig die Taste "Status" an der Fernbedienung drücken; auf dem Bildschirm erscheint hierauf: –

2) Nach der Selbstdiagnose wird das Gerät automatisch auf sämtliche werksseitigen Standardeinstellungen zurückgesetzt: –

| | | | | | | | | | | | |
|----|---|----|------------------------|----|---|----|---------------------|-----------|---|----|---------|
| 1 | — | ok | Tuner | 11 | — | — | Dolby IC for C/R | 21 | — | ok | P SBLED |
| 2 | — | ok | ZF-Verstärker | 12 | — | ok | P S MODE | 22 | — | ok | P OFF |
| 3 | — | ok | EEPROM | 13 | — | ok | P TA0 | 23 | — | ok | P DEFL |
| 4 | — | — | Audio AV-Schalter 1 | 14 | — | ok | P TA1 | 24 | — | ok | P RAM |
| 5 | — | ok | Video AV switch1 | 15 | — | ok | P TA2 | Hex codes | | | |
| 6 | — | ok | Video AV-Schalter 1 | 16 | — | ok | P TA3 | | | | |
| 7 | — | ok | Video AV-Schalter 2 | 17 | — | ok | P SDA | | | | |
| 8 | — | ok | MSP | 18 | — | ok | P SCL1 | | | | |
| 9 | — | — | Dolby Sub | 19 | — | ok | P SCL3 | | | | |
| 10 | — | — | Dolby IC for L/R | 20 | — | ok | P SCL4 | Hex codes | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Wenn der Hauptprozessor (CCU) an den Anschlüssen einen Fehler finden sollte, oder der Anschluss nicht belegt ist, zeigt die entsprechende Position — anstelle von OK an.

ALIGNMENT SETTINGS

(The figures used below are nominal and used for representative purposes only)

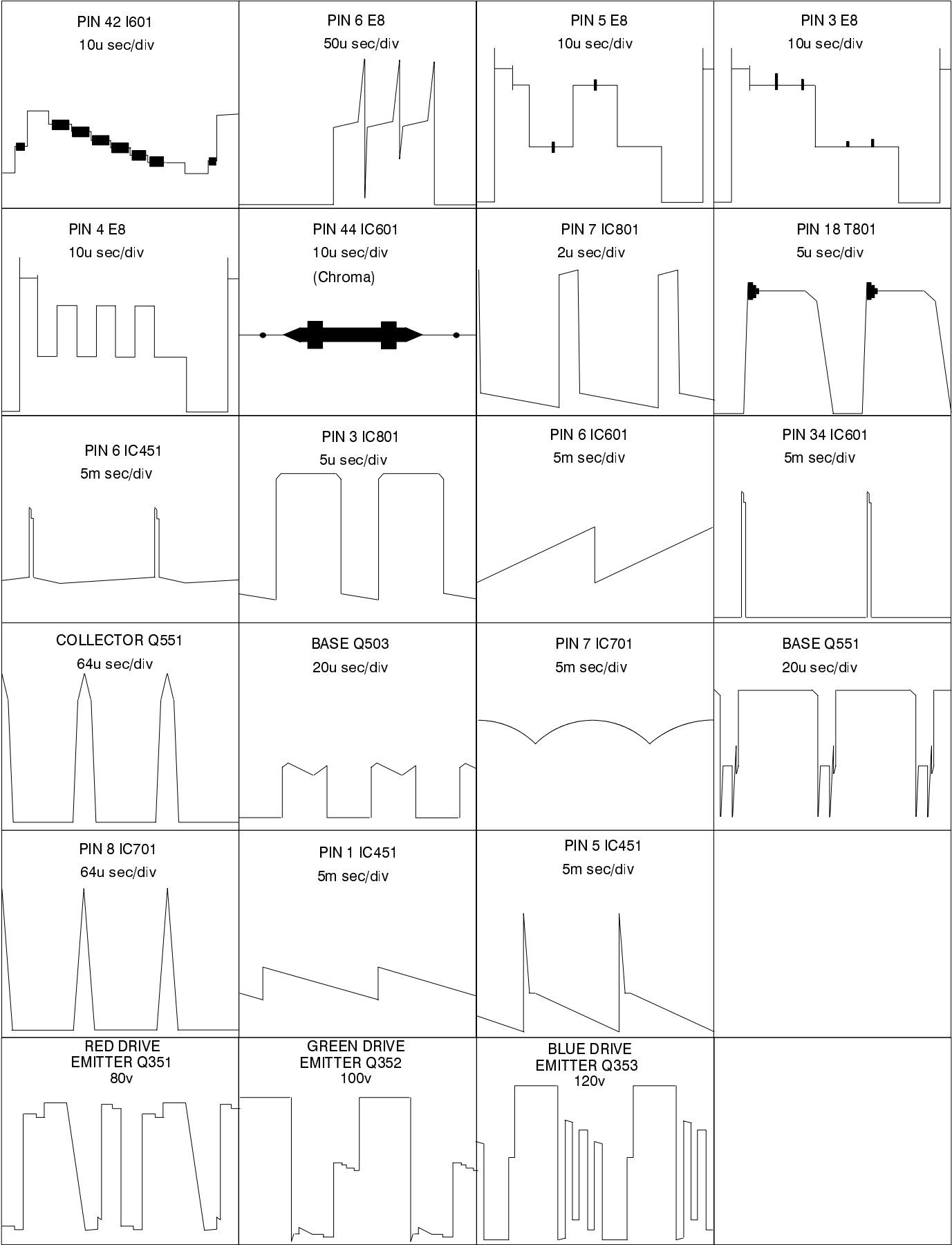
| Alignment Function | | Settings / Special features |
|-------------------------|--------------------------|---|
| 1. Vertical amplitude | V—AMP 051 | Optimum setting |
| 2. Vertical symmetry | V—SYM 013 | |
| 3. Vertical linearity | V—LIN 012 | |
| 4. Vert. D.C. | Vert. D.C. 000 | No adjustment |
| 5. V—Pos. | V. Pos. 003 | Optimum setting |
| 6. Horizontal amplitude | H—AMP —033 | Optimum setting |
| 7. Horizontal position | H—POS 049 | |
| 8. Text Position | TEXT POSITION 045 | Optimum setting |
| 9. EW—amplitude | E—W—AMP 1 —058 | Optimum setting |
| 10. EW—amplitude | E—W—AMP 2 023 | Optimum setting |
| 11. Trapezium—comp | TRAPEZ—1 —014 | Optimum setting |
| 12. Trapezium— comp | TRAPEZ—2 012 | Optimum setting |
| 13. Colour VCO | Colour VCO 015 | Optimum setting |
| 14. Cut—off DC | Cut—off DC 050 | No adjustment |
| 15. Ug2 Test | Ug 2 Test 107 021 023 | Select Cutoff DC in ServiceMode and confirm the value is 128. Select Ug 2 Test noting colour with largest value, adjust on FBT until a colour reaches 20 ~ 30. Connect an oscilloscope to the cathode of the biggest value colour, select Cutoff DC mode and adjust get Cutoff pulse voltage to $159 \pm 5V$. Disconnect the oscilloscope and adjust the screen to whichever colour reaches 70 ± 30 first. |
| 16. Cutoff | Cutoff 045 055 050 | Press the GREEN button to step through the settings. Adjust for optimum. |
| 17. White | White 224 255 237 | Press the GREEN button to step through the settings. Adjust for optimum. |

ABGLEICHTABELLE

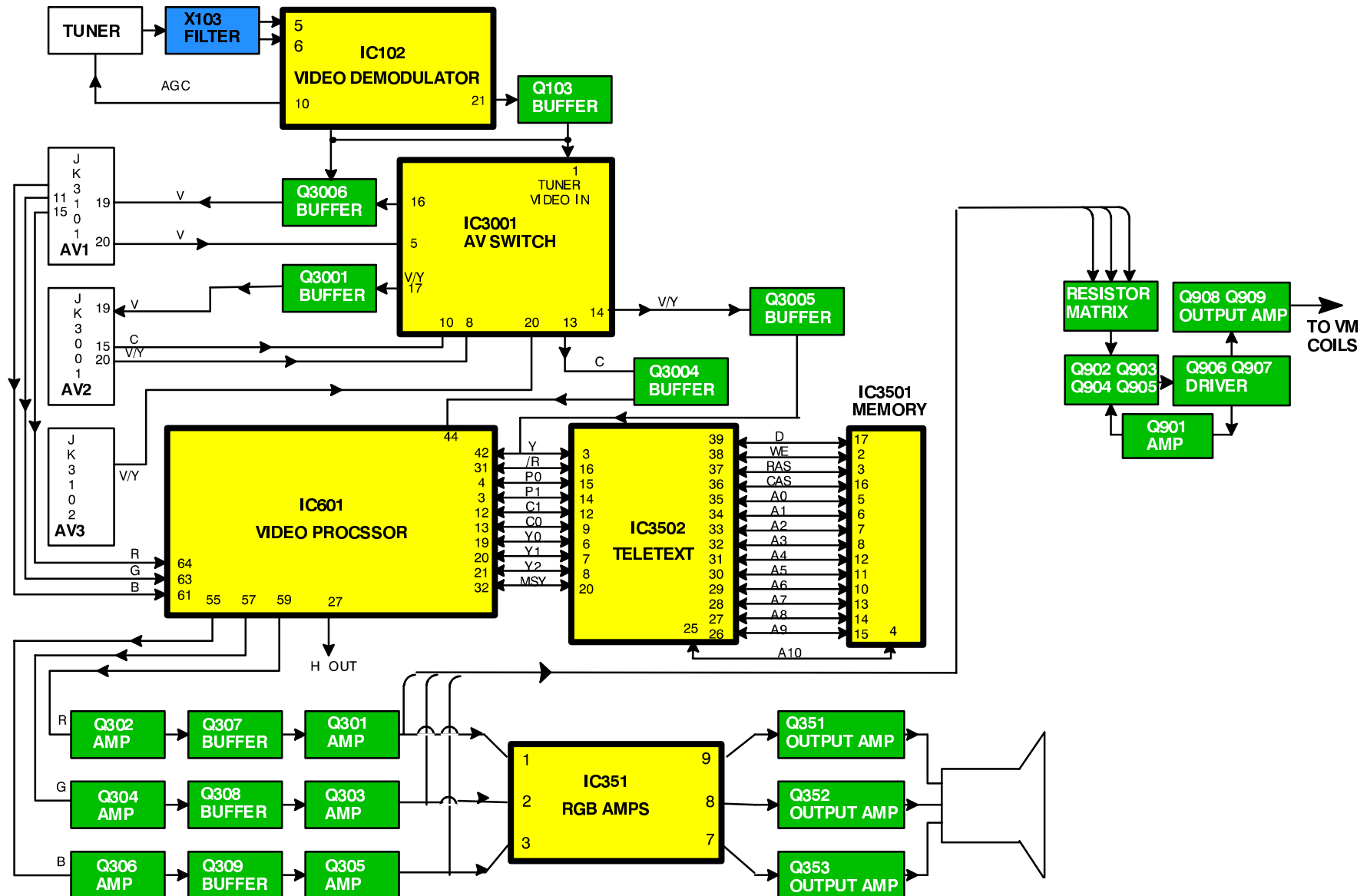
(Die angegebenen Werte sind Mittelwerte und Können individuell nach oben oder unten nach dem korrekten Abgleich abweichen)

| Abgleichfunktion | | Einstellung/Besondere Merkmale |
|--------------------------|--------------------------|---|
| 1. Vertikale Amplitude | V—AMP 054 | Optimale Einstellung. |
| 2. Vertikale symmetrie | V—SYM 002 | |
| 3. Vertical linearität | V—LIN 006 | |
| 4. Vert. DC | Vert. D.C. 000 | Nicht einstellen. |
| 5. V—Pos | V. Pos. 005 | Optimale Einstellung. |
| 6. Horizontale Amplitude | H—AMP 055 | Optimale Einstellung. |
| 7. Horizontale position | H—POS 061 | |
| 8. Text Position | TEXT POSITION 048 | Optimale Einstellung. |
| 9. OW—amplitude | E—W—AMP 1 —128 | Optimale Einstellung. |
| 10. OW—amplitude | E—W—AMP 2 006 | Optimale Einstellung. |
| 11. Trapez—Kompensation | TRAPEZ—1 047 | Optimale Einstellung. |
| 12. Trapez—Kompensation | TRAPEZ—2 —128 | Optimale Einstellung. |
| 13. Colour VCO | Colour VCO —005 | Optimale Einstellung. |
| 14. Cut—off DC | Cut—off DC 171 | Nicht einstellen. |
| 15. Bildschirm | Ug 2 Test 006 055 059 | Wählen Sie den Cutoff DC Im Service Mode und bestätigen Sie den Wert 128. Im Ug2—Feld muß die Farbe mit dem höchsten Wert notiert werden. Mit dem Screen—Poti wird die Farbe auf 20 bis 30 eingestellt. An die Kathode mit den höchsten Wert (aus Punkt 1) wird ein Oszilloskop angeschlossen. Im Cutoff DC Mode wird der Cutoff—Puls auf $159V \pm 5V$ eingestellt. Das Oszilloskop entfernen und im Cutoff Mode die Werte so einstellen, daß sie alle bis 70 ± 30 liegen. |
| 16. Cutoff | Cutoff 034 052 056 | Die Einstellungen mit Hilfe der GRÜNEN Taste anwählen. Optimale Einstellung. |
| 17. White | White 216 255 216 | Die Einstellungen mit Hilfe der GRÜNEN Taste anwählen. Optimale Einstellung. |

WAVEFORM PATTERN TABLE
SIGNAL TABELLE

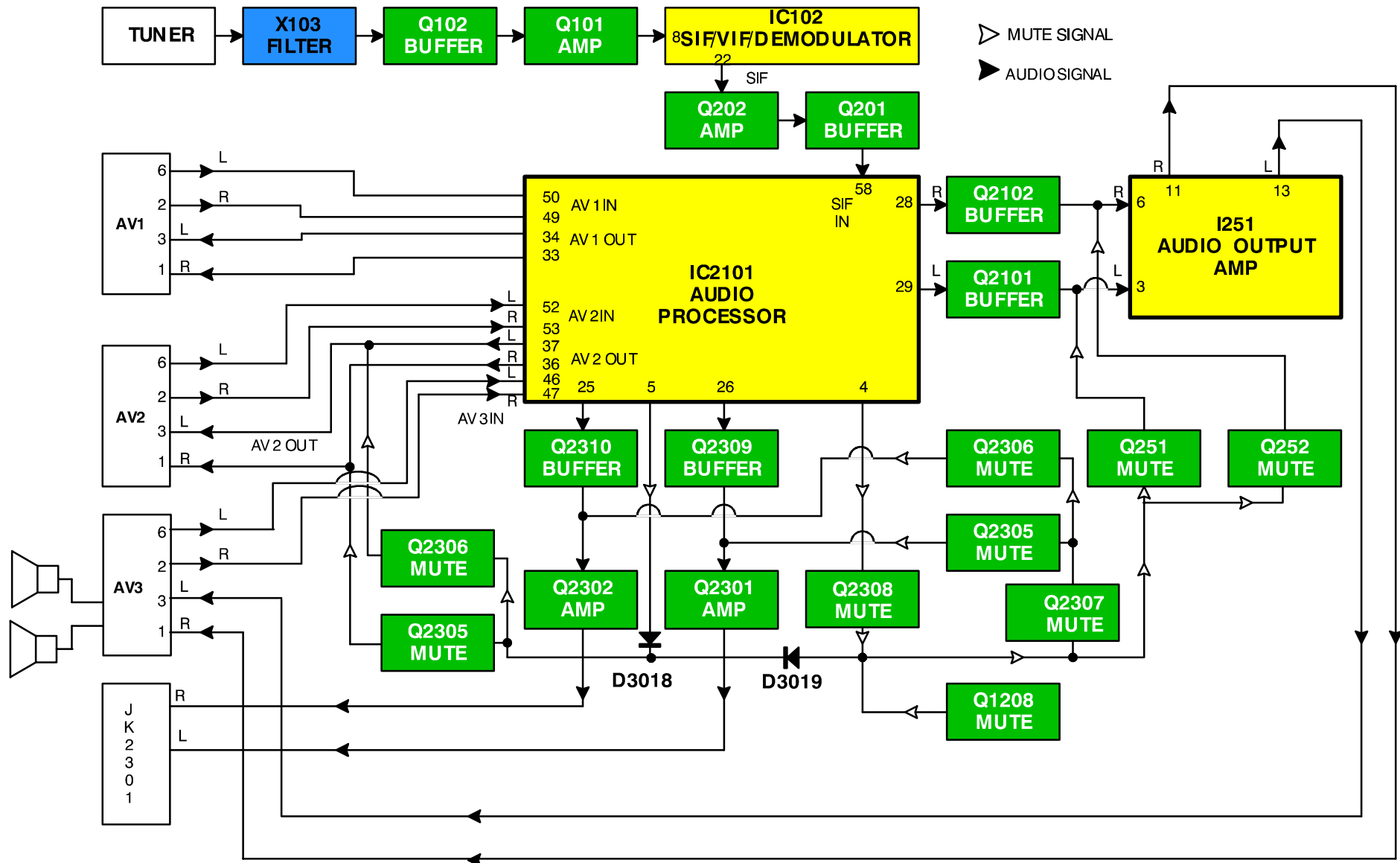


VIDEO BLOCK DIAGRAM BILDSIGNAL BLOCKSCHEMA

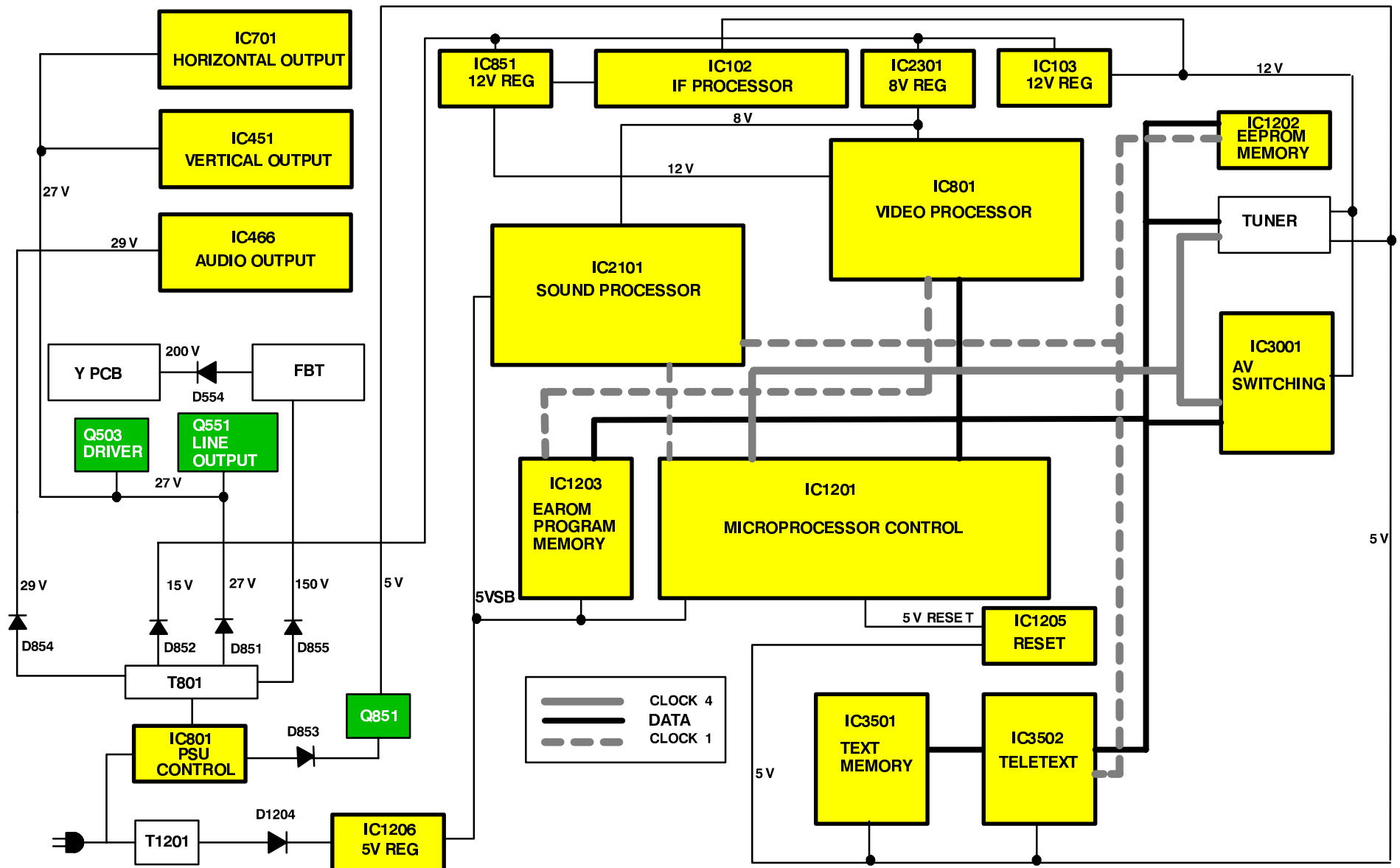


AUDIO BLOCK DIAGRAM

TONSIGNAL BLOCKSCHEMA



POWER SUPPLY AND CONTROL BLOCK DIAGRAM STROMVERSORGUNGS BLOCKSCHEMA



PARTS LOCATION

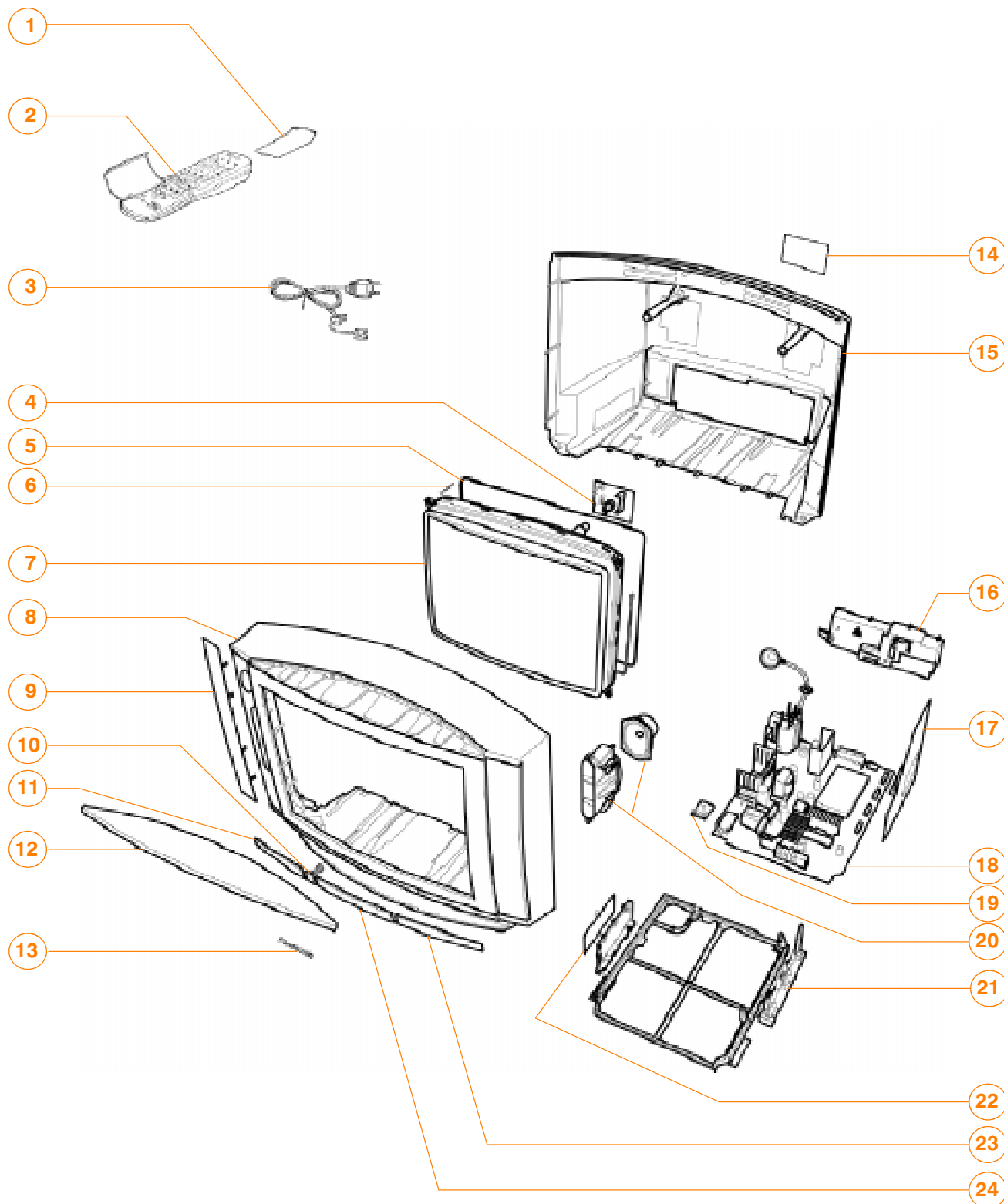
NOTE :

The numbers on the exploded view below refer to the miscellaneous section of the Replacement Parts List.

EXPLOSIONSZEICHNUNG

Anmerking :

Die Nummer auf den mechanischen Teilen zeigt die Bezugsnummer der Ersatzteilliste an.



REPLACEMENT PARTS LIST

Important Safety Notice

Components identified by ▲ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

COMMON PARTS FOR MODELS TX-28XD3F AND TX-25XD3F

| Ref No. | Part No. | Description |
|---------------------------------|--------------|----------------------------|
| MISCELLANEOUS COMPONENTS | | |
| 1) | UR51EC780 | BATTERY COVER (REMOTE) |
| 2) | EUR51920 | REMOTE CONTROL |
| 3) | TSX8E0020 | POWER CORD ▲ |
| 4) | TNP117070AT | Y P.C.B. ▲ |
| 5) | ***** | REFER TO DIFFERENCE LIST |
| 6) | VP17005-32 | CRT FIXING SCREW |
| 7) | ***** | REFER TO DIFFERENCE LIST |
| 8) | ***** | REFER TO DIFFERENCE LIST |
| 9) | ***** | REFER TO DIFFERENCE LIST |
| 10) | ***** | REFER TO DIFFERENCE LIST |
| 11) | ***** | REFER TO DIFFERENCE LIST |
| 12) | ***** | REFER TO DIFFERENCE LIST |
| 13) | TBM8E1728 | PANASONIC BADGE |
| 14) | ***** | REFER TO DIFFERENCE LIST |
| 15) | ***** | REFER TO DIFFERENCE LIST |
| 16) | TKP8E1165 | AV COVER |
| 17) | TNP8EB007AB | B PCB ▲ |
| 18) | ***** | REFER TO DIFFERENCE LIST ▲ |
| 19) | TNP8EN014AA | N P.C.B. ▲ |
| 20) | EAG1216A2 | SPEAKER |
| 21) | TMX8E010 | CHASSIS BRACKET |
| 22) | TNP8EP013AB | P .P.C.B. ▲ |
| 23) | ***** | REFER TO DIFFERENCE LIST |
| 24) | ***** | REFER TO DIFFERENCE LIST |
| | TQB8E2300A | GERMAN INST BOOK |
| | TQB8E2300B | DUTCH INST BOOK |
| | TQB8E2300C | ITALIAN INST BOOK |
| | TQB8E2300D | FRENCH INST BOOK |
| | TQB8E2300E | SPANISH INST BOOK |
| | ENG29501G | TUNER |
| | UM-3DEP-2P | BATTERY |
| | TBM8E1615 | PRESET LABEL |
| | TEK6940 | LID CATCHER |
| | TES8E015 | POWER BUTTON SPRING |
| | TMW8E020 | LED HOLDER |
| | TMW8E020-1 | LED HOLDER |
| | 31221212478 | FIX CLIP |
| | TES4537 | SPRING |
| | F9-4-220 | RELAY |
| | SVM100 | COIL |
| | ERC12GK825 | SOLID 0.5W 10% 8M2Ω |
| INTEGRATED CIRCUITS | | |
| IC100 | TSA5514AT/C2 | A.F.C.CONTROL |
| IC103 | L78M09MRB | 9V REGULATOR |
| IC251 | LA4280-TV | AUDIO OUTPUT |
| IC351 | TDA6103Q-N3 | R.G.B.AMPLIFIER |
| IC451 | LA7845N | VERTICAL OUTPUT |
| IC601 | VDP3108APPA1 | VIDEO PROCESSOR |
| IC701 | TEA2031A | HORIZONTAL OUTPUT |
| IC801 | TDA4601 | POWER SUPPLY |
| IC851 | L78M12MRB | 12V REGULATOR |
| IC1061 | RPM-637CBRL | LED RECEIVER |
| IC1201 | CCU3000I-07 | CENTRAL CONTROL UNIT |
| IC1205 | MN1280R | RESET |
| IC2101 | MSP3410BPPF7 | AUDIO PROCESSOR |

ERSATZTEILLISTE

Wichtiger Sicherheitshinweis

Teile, die mit einem Hinweis ▲ gekennzeichnet sind, sind wichtig für die Sicherheit. Sollte ein Auswechseln erforderlich sein, sind unbedingt Originalteile einzusetzen.

| Ref No. | Part No. | Description |
|-------------------|--------------|-------------------|
| IC2301 | AN78L08TA | 8V REGULATOR |
| IC3001 | TEA6415C | VIDEO SWITCH |
| IC3501 | UD61256DC-08 | DYNAMIC RAM |
| IC3502 | TPU3040-20 | TEXT PROCESSOR |
| CAPACITORS | | |
| C100 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C101 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C102 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C103 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C104 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C107 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C124 | ECEA1CKA470 | ELECT 16V 47μF |
| C130 | ECEA1CKA470 | ELECT 16V 47μF |
| C135 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C136 | ECA1CM100GB | ELECT 16V 10pF |
| C137 | ECA1EM101GB | ELECT 25V 1μF |
| C138 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C139 | ECUV1H390JCX | S.M.CAP 50V 39pF |
| C140 | ECUV1H390JCX | S.M.CAP 50V 39pF |
| C141 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C144 | ECA1HMR33GB | ELECT 50V 0.33μF |
| C145 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C146 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C147 | ECUV1H102KBX | S.M.CAP 50V 1nF |
| C148 | ECEA1HKAR22 | ELECT 50V 0.22μF |
| C149 | ECA1EM470GB | ELECT 25V 47pF |
| C150 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C151 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C154 | ECA1CM221GB | ELECT 16V 220pF |
| C170 | ECUV1H331KBX | S.M.CAP 50V 330pF |
| C201 | ECUV1H070DCX | S.M.CAP 50V 7pF |
| C202 | ECUV1H070DCX | S.M.CAP 50V 7pF |
| C203 | ECUV1H470JX | S.M.CAP 50V 47pF |
| C204 | ECUV1H560JCX | S.M.CAP 50V 56pF |
| C205 | ECUV1H560JCX | S.M.CAP 50V 56pF |
| C207 | ECUV1H560JCX | S.M.CAP 50V 56pF |
| C209 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C210 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C211 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C251 | ECA1EM330B | ELECT 25V 33pF |
| C253 | ECA1HM4R7GB | ELECT 50V 4.7μF |
| C254 | 222236516474 | FILM 160V 470nF |
| C255 | ECEA1EGE101 | ELECT 25V 100μF |
| C257 | ECA1HM4R7GB | ELECT 50V 4.7μF |
| C258 | ECA1EM330B | ELECT 25V 33pF |
| C259 | 222236516474 | FILM 160V 470nF |
| C260 | ECA1VM102GE | ELECT 35V 1nF |
| C261 | ECA1VM102GE | ELECT 35V 1nF |
| C262 | 222236516394 | FILM 160V 390nF |
| C263 | ECA1HM010GB | ELECT 50V 1pF |
| C264 | ECEA1HGE222 | ELECT 50V 2200μF |
| C265 | 222236516394 | FILM 160V 390nF |
| C266 | ECA1HM010GB | ELECT 50V 1pF |
| C267 | ECUV1H104KBX | S.M.CAP 50V 100nF |
| C268 | ECUV1H104KBX | S.M.CAP 50V 100nF |
| C271 | ECUV1H561KBX | S.M.CAP 50V 560pF |
| C301 | ECA1CM470GB | ELECT 16V 47μF |
| C302 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C303 | ECUV1H104ZFX | S.M.CAP 50V 100nF |

| Ref No. | Part No. | Description | |
|---------|--------------|--------------------|---|
| C310 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C354 | ECQM2104KZ | FILM 250V 100nF | |
| C355 | ECUV1H222JCX | S.M.CAP 50V 2.2nF | |
| C356 | ECUV1H222JCX | S.M.CAP 50V 2.2nF | |
| C357 | ECUV1H222JCX | S.M.CAP 50V 2.2nF | |
| C358 | 222236516224 | FILM 160V 220nF | |
| C360 | ECKC3D152J | CERAMIC 2KV 1.5nF | ▲ |
| C361 | ECA1HMR47GB | ELECT 50V 0.47μF | |
| C364 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C366 | ECA1CM100GB | ELECT 16V 10pF | |
| C451 | ECUV1H102JX | S.M.CAP 50V 1nF | |
| C452 | ECUV1H102ZFX | S.M.CAP 50V 1nF | |
| C453 | ECUV1H472KBX | S.M.CAP 50V 4.7nF | |
| C454 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C455 | ECEA1VGE222 | ELECT 35V 2200μF | |
| C456 | ECEA1HGE221 | ELECT 50V 220μF | |
| C457 | ECUV1H223KBX | S.M.CAP 50V 22nF | |
| C458 | ECQM1H273J | FILM 50V 27nF | |
| C459 | 222236516224 | FILM 160V 220nF | |
| C460 | 222236516105 | FILM 160V 1μF | |
| C462 | ECEA1VGE332 | ELECT 35V 3300μF | |
| C501 | ECA1AM330GB | ELECT 10V 33pF | |
| C506 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C508 | 222236516105 | FILM 160V 1μF | |
| C509 | ECEA1HGE101 | ELECT 50V 100μF | |
| C510 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C511 | ECQM2683JZ | FILM 250V 68nF | |
| C551 | 222237544182 | FILM 1.8nF | |
| C552 | ECWH15H102H | FILM 1500V 100pF | |
| C554 | ECWF2H514J | FILM 500V 510nF | ▲ |
| C555 | ECWH12H103J | FILM 1250V 10nF | ▲ |
| C556 | ECQM4333JC | FILM 400V 33nF | |
| C559 | ECWF2H684J | FILM 500V 680nF | ▲ |
| C560 | ECEA2GGE2R2 | ELECT 400V 2.2μF | |
| C562 | ECKC2H101J | CERAMIC 500V 100pF | ▲ |
| C563 | ECEA2EU220 | ELECT 250V 22μF | |
| C564 | ECEA2AU2R2 | ELECT 100V 2.2μF | |
| C565 | ECQP1H273J | FILM 100V 2700μF | |
| C601 | ECUV1H271JCX | S.M.CAP 50V 270pF | |
| C602 | ECUV1H121JCX | S.M.CAP 50V 120pF | |
| C603 | ECUV1H471JCX | S.M.CAP 50V 470pF | |
| C604 | ECA0JM102GB | ELECT 6.3V 1nF | |
| C605 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C606 | ECUV1H040CCX | S.M.CAP 50V 4pF | |
| C607 | ECUV1H040CCX | S.M.CAP 50V 4pF | |
| C608 | ECUV1H683ZFX | S.M.CAP 50V 68nF | |
| C609 | ECA1CM470GB | ELECT 16V 47μF | |
| C610 | ECUV1H683ZFX | S.M.CAP 50V 68nF | |
| C611 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C612 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C613 | ECUV1H102JCX | S.M.CAP 50V 1nF | |
| C614 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C615 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C616 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C618 | ECUV1H473ZFX | S.M.CAP 50V 47nF | |
| C619 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C620 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C621 | ECA1CM100GB | ELECT 16V 10pF | |
| C622 | ECA1CM100GB | ELECT 16V 10pF | |
| C623 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C624 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C625 | ECEA1HNR47 | ELECT 50V 0.47μF | |
| C626 | ECA0JM102GB | ELECT 6.3V 1nF | |
| C627 | ECUV1H100DCX | S.M.CAP 50V 10pF | |
| C628 | ECUV1H470JCX | S.M.CAP 50V 47pF | |
| C629 | ECUV1H101JCX | S.M.CAP 50V 100pF | |
| C630 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C631 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C632 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C633 | ECUV1H102JCX | S.M.CAP 50V 1nF | |
| C636 | ECUV1H101JCX | S.M.CAP 50V 100pF | |
| C637 | ECUV1H102KBX | S.M.CAP 50V 1nF | |

| Ref No. | Part No. | Description | |
|---------|---------------|--------------------|---|
| C638 | ECUV1H181JCX | S.M.CAP 50V 180pF | |
| C639 | ECUV1H561KBX | S.M.CAP 50V 560pF | |
| C701 | ECEA1HGE101 | ELECT 50V 100μF | |
| C702 | ECUV1H103KBX | S.M.CAP 50V 10nF | |
| C703 | ECEA1HGE100 | ELECT 50V 10μF | |
| C704 | ECQB1H223K | FILM 50V 22nF | |
| C705 | ECQB1H102J | FILM 50V 1nF | |
| C801 | ECUV1H101JCX | S.M.CAP 50V 100pF | |
| C802 | ECQE6104K | FILM 600V 100nF | ▲ |
| C803 | ECUV1H560JX | S.M.CAP 50V 56pF | |
| C804 | ECA1HM101GB | ELECT 50V 100pF | |
| C805 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C806 | ECEA1HU101 | ELECT 50V 100μF | |
| C807 | ECEA1EGE101 | ELECT 25V 100μF | |
| C808 | ECQB1H103J | FILM 50V 10nF | |
| C809 | ECQB1H103J | FILM 50V 10nF | |
| C811 | ECEA1HN010 | ELECT 50V 1μF | |
| C815 | ECKC2H472J | CERAMIC 500V 4.7nF | ▲ |
| C816 | ECKC3D222JB | CERAMIC 2KV 2200pF | ▲ |
| C817 | ECQB1H223K | FILM 50V 22nF | |
| C818 | ECKC2H472J | CERAMIC 500V 4.7nF | ▲ |
| C820 | ECOS2GG181NG | ELECT 400V 180μF | ▲ |
| C821 | ECKWNA332MECC | CERAMIC 250V 3.3nF | |
| C841 | 222233510224 | FILM 0.22μF | |
| C851 | ECKC2H681J | CERAMIC 500V 680pF | ▲ |
| C852 | ECEA1HU102 | ELECT 50V 1000μF | |
| C853 | ECEA1EGE222 | ELECT 25V 2200μF | |
| C854 | ECEA1HGE102 | ELECT 50V 1000μF | |
| C855 | ECKC3D471JB | CERAMIC 2KV 470pF | ▲ |
| C856 | ECEA1EGE222 | ELECT 25V 2200μF | |
| C857 | ECEA2EU101 | ELECT 250V 100μF | |
| C858 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C859 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C860 | ECA1CM471GB | ELECT 16V 470pF | |
| C861 | ECOS2EA221AB | ELECT 250V 220μF | |
| C862 | ECA1CM471GB | ELECT 16V 470pF | |
| C901 | ECUV1H030CCX | S.M.CAP 50V 30pF | |
| C902 | ECA1VM101GB | ELECT 35V 100pF | |
| C903 | ECA1CM470GB | ELECT 16V 47μF | |
| C904 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C905 | ECA1HM4R7GB | ELECT 50V 4.7μF | |
| C906 | ECUV1H471KBX | S.M.CAP 50V 470pF | |
| C907 | ECUV1H271JCX | S.M.CAP 50V 270pF | |
| C908 | ECUV1H151JCX | S.M.CAP 50V 150pF | |
| C909 | ECKC2H472J | CERAMIC 500V 4.7nF | ▲ |
| C910 | ECKC2H472J | CERAMIC 500V 4.7nF | ▲ |
| C911 | ECUV1H151JCX | S.M.CAP 50V 150pF | |
| C912 | ECEA2CU100 | ELECT 160V 10μF | |
| C913 | ECA1HM101GB | ELECT 50V 100pF | |
| C914 | ECA1HM101GB | ELECT 50V 100pF | |
| C915 | ECA1CM471GB | ELECT 16V 470pF | |
| C916 | ECEA2CU100 | ELECT 160V 10μF | |
| C1061 | ECA0JM101G | ELECT 6.3V 100pF | |
| C1062 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C1201 | ECUV1H332KBX | S.M.CAP 50V 3.3nF | |
| C1202 | ECUV1H332KBX | S.M.CAP 50V 3.3nF | |
| C1203 | ECUV1H332KBX | S.M.CAP 50V 3.3nF | |
| C1204 | ECUV1H332KBX | S.M.CAP 50V 3.3nF | |
| C1205 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C1206 | ECA1HM4R7GB | ELECT 50V 4.7μF | |
| C1207 | ECUV1H472KBX | S.M.CAP 50V 4.7nF | |
| C1208 | ECUV1H390JCX | S.M.CAP 50V 39pF | |
| C1209 | ECUV1H390JCX | S.M.CAP 50V 39pF | |
| C1210 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C1211 | ECUV1H470JCX | S.M.CAP 50V 47pF | |
| C1212 | ECA1CM470GB | ELECT 16V 47μF | |
| C1213 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C1214 | ECA1CM470GB | ELECT 16V 47μF | |
| C1215 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |
| C1217 | ECUV1H104ZFX | S.M.CAP 50V 100nF | |
| C1219 | ECA1CM471GB | ELECT 16V 470pF | |
| C1220 | ECUV1H103ZFX | S.M.CAP 50V 10nF | |

| Ref No. | Part No. | Description |
|---------|--------------|-------------------|
| C1221 | ECA0JM102GB | ELECT 6.3V 1nF |
| C1222 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C1223 | ECA1HM101GB | ELECT 50V 100pF |
| C1224 | ECA0JM222GB | ELECT 6.3V 2.2nF |
| C1225 | ECA0JM472GE | ELECT 6.3V 4.7nF |
| C1226 | ECA1HM101GB | ELECT 50V 100pF |
| C1227 | ECA1VM221B | ELECT 35V 220pF |
| C1228 | ECA1EM101GB | ELECT 25V 1µF |
| C2101 | ECUV1H223KBX | S.M.CAP 50V 22nF |
| C2102 | ECUV1H391KBX | S.M.CAP 50V 390pF |
| C2103 | ECUV1H102KBX | S.M.CAP 50V 1nF |
| C2104 | ECUV1H102KBX | S.M.CAP 50V 1nF |
| C2107 | ECUV1H391KBX | S.M.CAP 50V 390pF |
| C2108 | ECA1HM101GB | ELECT 50V 100pF |
| C2109 | ECUV1H223KBX | S.M.CAP 50V 22nF |
| C2110 | ECA1CM100GB | ELECT 16V 10pF |
| C2111 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C2112 | ECA1CM100GB | ELECT 16V 10pF |
| C2113 | ECUV1H102KBX | S.M.CAP 50V 1nF |
| C2114 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C2115 | ECUV1H471KBX | S.M.CAP 50V 470pF |
| C2116 | ECA1HM3R3GB | ELECT 50V 3.3µF |
| C2117 | ECUV1H471KBX | S.M.CAP 50V 470pF |
| C2118 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C2119 | ECA1CM100GB | ELECT 16V 10pF |
| C2120 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C2121 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C2123 | ECA1CM100GB | ELECT 16V 10pF |
| C2124 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C2125 | ECUV1H010CCX | S.M.CAP 50V 1pF |
| C2126 | ECUV1H010CCX | S.M.CAP 50V 1pF |
| C2127 | ECA1CM100GB | ELECT 16V 10pF |
| C2128 | ECUV1H683ZFX | S.M.CAP 50V 68nF |
| C2129 | ECQM1H334J | FILM 50V 330nF |
| C2307 | ECA1CM470GB | ELECT 16V 47µF |
| C2308 | ECA1CM470GB | ELECT 16V 47µF |
| C2310 | ECA1CM470GB | ELECT 16V 47µF |
| C2312 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C2313 | ECUV1H103KBX | S.M.CAP 50V 10nF |
| C2314 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C2315 | ECUV1H103KBX | S.M.CAP 50V 10nF |
| C2316 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C2317 | ECA1CM470GB | ELECT 16V 47µF |
| C2318 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C2319 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C2651 | ECUV1H103KBX | S.M.CAP 50V 10nF |
| C2652 | ECUV1H103KBX | S.M.CAP 50V 10nF |
| C3001 | ECA1HMR47GB | ELECT 50V 0.47µF |
| C3002 | ECA1HMR47GB | ELECT 50V 0.47µF |
| C3003 | ECA1EM4R7GB | ELECT 25V 4.7µF |
| C3004 | ECA1HM4R7GB | ELECT 50V 4.7µF |
| C3005 | ECA1HM4R7GB | ELECT 50V 4.7µF |
| C3006 | ECUV1H473ZFX | S.M.CAP 50V 47nF |
| C3007 | ECA1HM470GB | ELECT 50V 47µF |
| C3011 | ECUV1H473ZFX | S.M.CAP 50V 47nF |
| C3012 | ECA1CM470GB | ELECT 16V 47µF |
| C3013 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C3014 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C3017 | ECEA1CN470 | ELECT 16V 47µF |
| C3018 | ECUV1H102KBX | S.M.CAP 50V 1nF |
| C3019 | ECUV1H102KBX | S.M.CAP 50V 1nF |
| C3020 | ECCR1H120J | CERAMIC 50V 12pF |
| C3021 | ECUV1H102KBX | S.M.CAP 50V 1nF |
| C3023 | ECA1CM470GB | ELECT 16V 47µF |
| C3024 | ECUV1H473ZFX | S.M.CAP 50V 47nF |
| C3025 | ECUV1H102KBX | S.M.CAP 50V 1nF |
| C3026 | ECA1CM470GB | ELECT 16V 47µF |
| C3027 | ECA1CM470GB | ELECT 16V 47µF |
| C3028 | ECUV1H221JX | S.M.CAP 50V 220pF |
| C3029 | ECUV1H221JX | S.M.CAP 50V 220pF |
| C3030 | ECUV1H221JX | S.M.CAP 50V 220pF |
| C3031 | ECUV1H221JX | S.M.CAP 50V 220pF |

| Ref No. | Part No. | Description |
|---------|--------------|-------------------|
| C3032 | ECA1HMR47GB | ELECT 50V 0.47µF |
| C3033 | ECA1HMR47GB | ELECT 50V 0.47µF |
| C3034 | ECUV1H221JX | S.M.CAP 50V 220pF |
| C3035 | ECUV1H221JX | S.M.CAP 50V 220pF |
| C3036 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C3037 | ECUV1H561JCX | S.M.CAP 50V 560pF |
| C3038 | ECA1CM470GB | ELECT 16V 47µF |
| C3039 | ECA1CM470GB | ELECT 16V 47µF |
| C3040 | ECA1HMR47GB | ELECT 50V 0.47µF |
| C3041 | ECA1HMR47GB | ELECT 50V 0.47µF |
| C3043 | ECA1HM4R7GB | ELECT 50V 4.7µF |
| C3045 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C3049 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C3050 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C3051 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C3052 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C3053 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C3054 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C3055 | ECUV1H222KBX | S.M.CAP 50V 2.2nF |
| C3056 | ECUV1H101JCX | S.M.CAP 50V 100pF |
| C3062 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C3071 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C3151 | ECUV1H561JCX | S.M.CAP 50V 560pF |
| C3152 | ECUV1H561JCX | S.M.CAP 50V 560pF |
| C3501 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C3502 | ECA1HM101GB | ELECT 50V 100pF |
| C3503 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C3504 | ECUV1H102JCX | S.M.CAP 50V 1nF |
| C3505 | ECUV1H104ZFX | S.M.CAP 50V 100nF |
| C3506 | ECA1CM470GB | ELECT 16V 47µF |
| C3507 | ECA1CM470GB | ELECT 16V 47µF |
| C3508 | ECUV1H473ZFX | S.M.CAP 50V 47nF |
| C3509 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C3510 | ECA0JM102GB | ELECT 6.3V 1nF |
| C3511 | ECUV1H103ZFX | S.M.CAP 50V 10nF |

DIODES

| | | |
|------|--------------|------------------|
| D140 | MA3020TX | DIODE |
| D141 | MA3020TX | DIODE |
| D251 | MA2180TP | DIODE |
| D253 | RB721Q40T77 | DIODE |
| D254 | RB721Q40T77 | DIODE |
| D310 | MA165TA5 | DIODE 1SS133T-77 |
| D311 | MA29TA5 | DIODE |
| D312 | MA29TA5 | DIODE |
| D354 | ERA22-04V1 | DIODE |
| D355 | ERA22-04V1 | DIODE |
| D356 | ERA22-04V1 | DIODE |
| D357 | MA165TA5 | DIODE 1SS133T-77 |
| D358 | MA165TA5 | DIODE 1SS133T-77 |
| D359 | MA165TA5 | DIODE 1SS133T-77 |
| D360 | MA4150 | DIODE |
| D451 | MA165TA5 | DIODE 1SS133T-77 |
| D452 | MA165TA5 | DIODE 1SS133T-77 |
| D454 | ERA15-02V3 | DIODE |
| D456 | MA2160BLFS | DIODE |
| D470 | MA4020 | DIODE |
| D501 | MA165TA5 | DIODE 1SS133T-77 |
| D502 | EU02 | DIODE |
| D551 | ERD07-15L7 | DIODE |
| D552 | TVSRU2AM | DIODE |
| D554 | AU02V0 | DIODE |
| D556 | MA166TA5 | DIODE |
| D601 | MA165TA5 | DIODE 1SS133T-77 |
| D602 | MA165TA5 | DIODE 1SS133T-77 |
| D604 | MA165TA5 | DIODE 1SS133T-77 |
| D605 | MA165TA5 | DIODE 1SS133T-77 |
| D606 | MA165TA5 | DIODE 1SS133T-77 |
| D609 | MA167TA5 | DIODE |
| D701 | MA165TA5 | DIODE 1SS133T-77 |
| D702 | MTZJT-775.6C | DIODE |

| Ref No. | Part No. | Description |
|----------------|--------------|-------------------|
| D707 | MTZJT-775.6C | DIODE |
| D804 | ERA15-02V3 | DIODE |
| D805 | EU02 | DIODE |
| D806 | RBV4-08 | DIODE |
| D807 | EU02 | DIODE |
| D809 | MA165TA5 | DIODE 1SS133T-77 |
| D814 | MA165TA5 | DIODE 1SS133T-77 |
| D851 | EU02 | DIODE |
| D852 | ERD32-02L7 | DIODE |
| D853 | FML22SLF610 | DIODE |
| D854 | RU4AMLF-M1 | DIODE |
| D855 | RU4BLF-L1 | DIODE |
| D856 | MTZJT-775.1A | DIODE |
| D857 | MTZJ33B | DIODE |
| D858 | MA29TA5 | DIODE |
| D901 | MA165TA5 | DIODE 1SS133T-77 |
| D902 | MA165TA5 | DIODE 1SS133T-77 |
| D904 | MA165TA5 | DIODE 1SS133T-77 |
| D906 | RLS72TE-11 | DIODE OR PMLL4148 |
| D1203 | MA170 | DIODE |
| D1204 | SLR56UR3FLF | LED |
| D1205 | MA165TA5 | DIODE 1SS133T-77 |
| D1206 | MTZJT-778.2C | DIODE |
| D1207 | MA165TA5 | DIODE 1SS133T-77 |
| D1208 | MA165TA5 | DIODE 1SS133T-77 |
| D1209 | MA165TA5 | DIODE 1SS133T-77 |
| D1210 | MA165TA5 | DIODE 1SS133T-77 |
| D1211 | MTZJT-775.1C | DIODE |
| D1212 | MA170 | DIODE |
| D1213 | MA165TA5 | DIODE 1SS133T-77 |
| D1214 | MA170 | DIODE |
| D1216 | MTZJT-778.2C | DIODE |
| D2303 | MA165TA5 | DIODE 1SS133T-77 |
| D2304 | MTZJT-779.1C | DIODE |
| D3001 | MTZJT-7712C | DIODE |
| D3003 | MTZJT-778.2C | DIODE |
| D3004 | MA4100 | DIODE |
| D3005 | MTZJT-7712C | DIODE |
| D3006 | MTZJT-7712C | DIODE |
| D3007 | MTZJT-7712C | DIODE |
| D3008 | MTZJT-778.2C | DIODE |
| D3009 | MTZJT-778.2C | DIODE |
| D3010 | MTZJT-778.2C | DIODE |
| D3011 | MTZJT-778.2C | DIODE |
| D3012 | MTZJT-7712C | DIODE |
| D3013 | MTZJT-7712C | DIODE |
| D3014 | MTZJT-7712C | DIODE |
| D3015 | MTZJT-7712C | DIODE |
| D3016 | MTZJT-7712C | DIODE |
| D3018 | MA165TA5 | DIODE 1SS133T-77 |
| D3019 | MA165TA5 | DIODE 1SS133T-77 |
| D3501 | MA165TA5 | DIODE 1SS133T-77 |
| FUSES | | |
| F840 | 2153.15H | FUSE |
| F851 | TR5-T1250 | FUSE |
| F852 | TR5-T2000 | FUSE |
| F853 | TR5-T2000 | FUSE |
| F8401 | EYF52BC | FUSE HOLDER |
| F8402 | EYF52BC | FUSE HOLDER |
| SOCKETS | | |
| H1202 | 832AG11D-ESL | I.C.SOCKET |



| Ref No. | Part No. | Description |
|----------------------------|-------------|---------------------|
| TERMINALS AND LINKS | | |
| JA.1 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.1 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.10 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.11 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.12 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.13 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.14 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.15 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.16 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.17 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.18 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.19 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.2 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.2 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.20 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.21 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.22 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.24 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.25 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.26 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.27 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.28 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.29 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.3 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.30 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.4 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.5 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.6 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.7 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA.8 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.9 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA33 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA34 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA35 | ERJ8GEY0R00 | S.M.CAR .125W 5% 0Ω |
| JA36 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB1 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB10 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB11 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB12 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB13 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB14 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB15 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB16 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB17 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB18 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB19 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB2 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB20 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB21 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB22 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB23 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB24 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB25 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB26 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB27 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB28 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB29 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB3 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB30 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB31 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB32 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB33 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB34 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB35 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB36 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB37 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB38 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB39 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB40 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JB41 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |

| Ref No. | Part No. | Description | | | |
|--------------|-------------|----------------|----|----|--|
| JB42 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB43 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB44 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB45 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB46 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB47 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB48 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB49 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB50 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB51 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB52 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB53 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB54 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB55 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB56 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB57 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB58 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB59 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB6 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB61 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB62 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB63 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB64 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB65 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB66 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB67 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB68 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB69 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB7 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB70 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB71 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB72 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB73 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB74 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB75 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB77 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB79 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB8 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB80 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB81 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB9 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JK2301 | TJB18644 | AV TERMINAL | | | |
| JK3001 | TJS8E007 | 21PIN TERMINAL | | | |
| JK3101 | TJS8E007 | 21PIN TERMINAL | | | |
| JK3102 | TJB16673 | AV TERMINAL | | | |
| JSB1 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB12 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB13 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB14 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB2 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB4 | EXCELSA35T | COIL | | | |
| JSE011 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE012 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE013 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE014 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE015 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE016 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE031 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE032 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE035 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE037 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| J104 | EXCELSA35T | COIL | | | |
| J106 | EXCELSA35T | COIL | | | |
| J107 | EXCELSA35T | COIL | | | |
| J169 | EXCELSA35T | COIL | | | |
| COILS | | | | | |
| L001 | TLT100K991R | COIL | | | |
| L003 | EXCELSA35T | COIL | | | |
| L100 | TLT181K991R | COIL | | | |

| Ref No. | Part No. | Description |
|--------------------|--------------|-------------------------|
| L111 | TLT101K991R | COIL |
| L112 | EXCELSA35T | COIL |
| L113 | EXCELSA35T | COIL |
| L130 | ELESN8R2KA | COIL |
| L132 | ELESN8R2KA | COIL |
| L202 | TLT068K991R | COIL |
| L251 | EXCELSA35T | COIL |
| L301 | TLT047K991R | COIL |
| L302 | EXCEMT101BT | COIL |
| L303 | EXCEMT101BT | COIL |
| L304 | EXCEMT101BT | COIL |
| L352 | SDL-4101 | COIL |
| L353 | SDL-4101 | COIL |
| L354 | SDL-4101 | COIL |
| L552 | ELH5L437 | COIL |
| L553 | ELC08D055 | COIL |
| L554 | 297-23293 | COIL |
| L601 | TLT047K991R | COIL |
| L602 | EXCELD35V | COIL |
| L603 | TLT047K991R | COIL |
| L604 | EXCELD35V | COIL |
| L606 | TLT015K991R | COIL |
| L607 | EXCELSA35T | COIL |
| L701 | ELC10D006 | COIL |
| L801 | EXCELSA24T | COIL |
| L802 | TLT022K991R | COIL |
| L804 | ELESN4R7KA | COIL |
| L805 | 298-82858001 | COIL |
| L841 | ELF18D490F | COIL |
| L851 | EXCELD35V | COIL |
| L852 | EXCELSA35T | COIL |
| L853 | ELEIE470KA | COIL |
| L854 | ELEIN470KA | COIL |
| L855 | ELEIN470KA | COIL |
| L856 | ELEIN470KA | COIL |
| L901 | EXCELSA24T | COIL |
| L902 | EXCELSA24T | COIL |
| L1201 | TLT047K991R | COIL |
| L1202 | TLT047K991R | COIL |
| L1203 | TLT047K991R | COIL |
| L1204 | EXCELD35V | COIL |
| L2101 | TLT100K991R | COIL |
| L2102 | TLT039K991R | COIL |
| L2103 | EXCELSA35T | COIL |
| L2104 | EXCELSA35T | COIL |
| L3151 | EXCEMT101BT | COIL |
| L3152 | EXCEMT101BT | COIL |
| L3153 | EXCEMT101BT | COIL |
| L3154 | EXCEMT101BT | COIL |
| L3155 | ELEBT6R8KA | COIL |
| L3156 | ELEBT6R8KA | COIL |
| L3158 | EXCELSA39V | COIL |
| L3501 | EXCELD35V | COIL |
| L3502 | EXCELD35V | COIL |
| L3503 | ELESN4R7KA | COIL |
| L3504 | EXCELSA35T | COIL |
| TRANSISTORS | | |
| Q201 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q202 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q251 | 2SD1328STX | TRANSISTOR |
| Q252 | 2SD1328STX | TRANSISTOR |
| Q301 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q302 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q303 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q304 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q305 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q306 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q307 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q308 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q309 | BC847B | TRANSISTOR OR 2SD601ATX |

| Ref No. | Part No. | Description |
|---------|--------------|---------------------------|
| Q310 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q311 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q351 | 2SA1767 | TRANSISTOR |
| Q352 | 2SA1767 | TRANSISTOR |
| Q353 | 2SA1767 | TRANSISTOR |
| Q451 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q501 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q502 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q503 | 2SD836—AL | TRANSISTOR |
| Q504 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q551 | 2SD1577LB | TRANSISTOR |
| Q552 | 2SC1473—RN | TRANSISTOR |
| Q701 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q802 | S2000NLBMA | TRANSISTOR |
| Q851 | 2SD1273PLB | TRANSISTOR OR 2SD2396/JM3 |
| Q852 | TFD312SOF632 | DIODE |
| Q901 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q902 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q903 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q904 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q905 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q906 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q907 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q908 | 2SB940APLB | TRANSISTOR |
| Q909 | 2SD1264APLB | TRANSISTOR |
| Q1202 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1205 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1206 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1207 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1208 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q1211 | BC547B | TRANSISTOR |
| Q1212 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1213 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q2101 | BC860B | TRANSISTOR |
| Q2102 | BC860B | TRANSISTOR |
| Q2301 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q2302 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q2305 | 2SD1328STX | TRANSISTOR |
| Q2306 | 2SD1328STX | TRANSISTOR |
| Q2307 | BC860B | TRANSISTOR |
| Q2308 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q2309 | BC860B | TRANSISTOR |
| Q2310 | BC860B | TRANSISTOR |
| Q3001 | 2SC1318—S | TRANSISTOR |
| Q3004 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q3005 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q3006 | 2SC1318—S | TRANSISTOR |
| Q3011 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q3012 | 2SD1328STX | TRANSISTOR |
| Q3013 | 2SD1328STX | TRANSISTOR |

RESISTOR

| | | |
|--------|-------------|-----------------------|
| RL1201 | TSE1885—1 | TRANSISTOR |
| R.604 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R.622 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R.925 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R.926 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R100 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R101 | ERJ6GEYJ331 | S.M.CARB 0.1W 5% 330Ω |
| R102 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R103 | ERJ6GEYJ331 | S.M.CARB 0.1W 5% 330Ω |
| R107 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R109 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R112 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R114 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22KΩ |
| R117 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R130 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R131 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R132 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22KΩ |
| R133 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |

| Ref No. | Part No. | Description |
|---------|-------------|------------------------|
| R134 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R136 | ERJ6GEYJ393 | S.M.CARB 0.1W 5% 39KΩ |
| R138 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R201 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R203 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R204 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R205 | ERJ6GEYJ391 | S.M.CARB 0.1W 5% 390Ω |
| R206 | ERJ6GEYJ680 | S.M.CARB 0.1W 5% 68Ω |
| R207 | ERJ6GEYJ123 | S.M.CARB 0.1W 5% 12KΩ |
| R208 | ERJ6GEYJ182 | S.M.CARB 0.1W 5% 1K8Ω |
| R210 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R251 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R252 | ERJ6GEYJ272 | S.M.CARB 0.1W 5% 2K7Ω |
| R253 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R254 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R255 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R256 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R257 | ERJ6GEYJ100 | S.M.CARB 0.1W 5% 10Ω |
| R258 | ERJ6GEYJ272 | S.M.CARB 0.1W 5% 2K7Ω |
| R259 | ERJ6GEYJ100 | S.M.CARB 0.1W 5% 10Ω |
| R260 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R261 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R262 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R265 | ERD25TJ2R2 | CARBON 0.25W 5% 2R2Ω |
| R266 | ERD25TJ2R2 | CARBON 0.25W 5% 2R2Ω |
| R267 | ERF7ZK4R7 | WOUND 7W 10% 4R7Ω ▲ |
| R271 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R273 | ERD25TJ273 | CARBON 0.25W 5% 27KΩ |
| R301 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R302 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R303 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R304 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R305 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R306 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R307 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R308 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R309 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R310 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R311 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R312 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R313 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R314 | ERJ6GEYJ332 | S.M.CARB 0.1W 5% 3K3Ω |
| R315 | ERJ6GEYJ332 | S.M.CARB 0.1W 5% 3K3Ω |
| R316 | ERJ6GEYJ332 | S.M.CARB 0.1W 5% 3K3Ω |
| R321 | ERJ6GEYJ473 | S.M.CARB 0.1W 5% 47KΩ |
| R322 | ERJ6GEYJ473 | S.M.CARB 0.1W 5% 47KΩ |
| R323 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R324 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R351 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R352 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R353 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R354 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R355 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R356 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R357 | ERG1FJ683P | METAL 1W 5% 68KΩ ▲ |
| R358 | ERG1FJ683P | METAL 1W 5% 68KΩ ▲ |
| R359 | ERG1FJ683P | METAL 1W 5% 68KΩ ▲ |
| R363 | ERD25TJ103 | CARBON 0.25W 5% 10KΩ |
| R364 | ERD25TJ103 | CARBON 0.25W 5% 10KΩ |
| R365 | ERD25TJ103 | CARBON 0.25W 5% 10KΩ |
| R366 | ERDS1TJ152 | CARBON 0.5W 5% 1K5Ω |
| R367 | ERDS1TJ152 | CARBON 0.5W 5% 1K5Ω |
| R368 | ERDS1TJ152 | CARBON 0.5W 5% 1K5Ω |
| R369 | ERD25TJ203 | CARBON 0.25W 5% 20KΩ |
| R370 | ERJ6GEYJ822 | S.M.CARB 0.1W 5% 8K2Ω |
| R372 | ERQ12AJ121 | FUSIBLE 0.5W 5% 120Ω ▲ |
| R373 | ERJ6GEYJ220 | S.M.CARB 0.1W 5% 22Ω |
| R374 | ERD25TJ274 | CARBON 0.25W 5% 270KΩ |
| R375 | ERJ6GEYJ684 | S.M.CARB 0.1W 5% 680KΩ |
| R376 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18KΩ |
| R377 | ERQ1CJP4R7 | FUSIBLE 1W 5% 4R7Ω ▲ |
| R381 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |

| Ref No. | Part No. | Description | | | | |
|---------|--------------|-------------|--------|-----|-------|---|
| R382 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |
| R383 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |
| R451 | ERJ6GEYJ393 | S.M.CARB | 0.1W | 5% | 39KΩ | |
| R452 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R453 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100KΩ | |
| R455 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R456 | ERJ6GEYJ123 | S.M.CARB | 0.1W | 5% | 12KΩ | |
| R457 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R458 | ERD25TJ1R5 | CARBON | 0.25W | 5% | 1R5Ω | |
| R459 | ERJ6GEYJ680 | S.M.CARB | 0.1W | 5% | 68Ω | |
| R460 | ERJ6GEYJ513 | S.M.CARB | 0.1W | 5% | 51KΩ | |
| R461 | ERDS1TJ471 | CARBON | 0.5W | 5% | 470Ω | |
| R462 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R463 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R464 | ERW12PKR68 | WIREWOUND | 0.5W | 10% | R68Ω | ▲ |
| R465 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R466 | ERO25CKF1801 | METAL | 0.25W | 1% | 1K8Ω | ▲ |
| R467 | ERO25CKF1801 | METAL | 0.25W | 1% | 1K8Ω | ▲ |
| R470 | ERD25TJ512 | CARBON | 0.25W | 5% | 5K1Ω | |
| R471 | ERDS1TJ152 | CARBON | 0.5W | 5% | 1K5Ω | |
| R472 | ERDS1TJ4R7 | CARBON | 0.5W | 5% | 4R7Ω | |
| R501 | ERJ6GEYJ331 | S.M.CARB | 0.1W | 5% | 330Ω | |
| R502 | ERJ6GEYJ560 | S.M.CARB | 0.1W | 5% | 56Ω | |
| R503 | ERJ6GEYJ273 | S.M.CARB | 0.1W | 5% | 27KΩ | |
| R504 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R506 | ERD25TJ560 | CARBON | 0.25W | 5% | 56Ω | |
| R507 | ERQ14AJW3R3 | FUSIBLE | 0.25W | 5% | 3R3Ω | ▲ |
| R509 | ERDS1TJ152 | CARBON | 0.5W | 5% | 1K5Ω | |
| R510 | ERDS1TJ152 | CARBON | 0.5W | 5% | 1K5Ω | |
| R511 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100KΩ | |
| R512 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R513 | ERJ6GEYJ123 | S.M.CARB | 0.1W | 5% | 12KΩ | |
| R514 | ERJ6GEYJ123 | S.M.CARB | 0.1W | 5% | 12KΩ | |
| R551 | ERW2PKR47 | WIREWOUND | 2W | 10% | R47Ω | ▲ |
| R553 | ERG1SJ152 | METAL | 1W | 5% | 1K5Ω | |
| R554 | ERQ14AJW101 | METAL | 0.25W | 5% | 100Ω | ▲ |
| R558 | ERDS1TJ124 | CARBON | 0.5W | 5% | 120KΩ | |
| R561 | ERJ6GEYJ563 | S.M.CARB | 0.1W | 5% | 56KΩ | |
| R562 | ERJ6GEYJ225 | S.M.CARB | 0.125W | 5% | 2M2Ω | |
| R563 | ERJ6GEYJ225 | S.M.CARB | 0.125W | 5% | 2M2Ω | |
| R564 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R566 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8Ω | |
| R567 | ERJ6GEYJ274 | S.M.CARB | 0.1W | 5% | 270KΩ | |
| R601 | ERJ6GEYJ151 | S.M.CARB | 0.1W | 5% | 150Ω | |
| R602 | ERJ6GEYJ151 | S.M.CARB | 0.1W | 5% | 150Ω | |
| R603 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% | 75Ω | |
| R605 | ERJ6GEYJ183 | S.M.CARB | 0.1W | 5% | 18KΩ | |
| R606 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R607 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R608 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R609 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R610 | ERJ6GEYJ473 | S.M.CARB | 0.1W | 5% | 47KΩ | |
| R611 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |
| R612 | ERJ6GEYJ123 | S.M.CARB | 0.1W | 5% | 12KΩ | |
| R613 | ERJ6GEYJ271 | S.M.CARB | 0.1W | 5% | 270Ω | |
| R614 | ERJ6GEYJ470 | S.M.CARB | 0.1W | 5% | 47Ω | |
| R615 | ERJ6GEYJ333 | S.M.CARB | 0.1W | 5% | 33KΩ | |
| R616 | ERJ6GEYJ153 | S.M.CARB | 0.1W | 5% | 15KΩ | |
| R618 | ERJ6GEYJ151 | S.M.CARB | 0.1W | 5% | 150Ω | |
| R619 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R623 | ERJ6GEYJ821 | S.M.CARB | 0.1W | 5% | 820Ω | |
| R701 | ERQ12AJ101 | FUSIBLE | 0.5W | 5% | 100Ω | ▲ |
| R702 | ERQ12HJ8R2 | METAL | 0.5W | 5% | 8R2Ω | ▲ |
| R703 | ERG2FJ821 | METAL | 2W | 5% | 820Ω | ▲ |
| R704 | ERJ6GEYJ563 | S.M.CARB | 0.1W | 5% | 56KΩ | |
| R705 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100KΩ | |
| R706 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R707 | ERJ6GEYJ182 | S.M.CARB | 0.1W | 5% | 1K8Ω | |
| R708 | ERJ6GEYJ393 | S.M.CARB | 0.1W | 5% | 39KΩ | |
| R709 | ERJ6GEYJ393 | S.M.CARB | 0.1W | 5% | 39KΩ | |
| R710 | ERJ6GEYJ273 | S.M.CARB | 0.1W | 5% | 27KΩ | |
| R711 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |

| Ref No. | Part No. | Description | | | | |
|---------|--------------|-------------|-------|-----|-------|---|
| R712 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R713 | ERG1SJ101 | METAL | 1W | 5% | 100Ω | |
| R801 | ERG3FJ682H | METAL | 3W | 5% | 6K8Ω | ▲ |
| R802 | ERG2FJ472 | METAL | 2W | 5% | 4K7Ω | ▲ |
| R803 | ERX12SJWR47 | METAL | 12W | 5% | R47 | |
| R804 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8Ω | |
| R805 | ERJ6GEYJ221 | S.M.CARB | 0.1W | 5% | 220Ω | |
| R807 | ERO25CKF1201 | METAL | 0.25W | 1% | 1K2Ω | ▲ |
| R808 | 232266296706 | THERMISTOR | | | | |
| R809 | ERO25CKF1332 | METAL | 0.25W | 1% | 13KΩ | ▲ |
| R810 | ERD25TJ103 | CARBON | 0.25W | 5% | 10KΩ | |
| R811 | EVMEASA00B33 | CONTROL | | | 3KΩ | |
| R812 | ERDS1TJ220 | CARBON | 0.5W | 5% | 22Ω | |
| R813 | ERD50FJ274 | CARBON | 0.5W | 5% | 270KΩ | |
| R814 | ERF7ZK2R7 | WOUND | 7W | 20% | 2R7Ω | ▲ |
| R815 | ERDS1TJ563 | CARBON | 0.5W | 5% | 56KΩ | |
| R817 | ERG3FJ470 | METAL | 3W | 5% | 47Ω | ▲ |
| R818 | ERD50FJ104 | CARBON | 0.5W | 5% | 100KΩ | |
| R819 | ERD50FJ184 | CARBON | 0.5W | 5% | 180KΩ | |
| R820 | ERD75TAJ825 | CARBON | 0.75W | 5% | 8M2Ω | ▲ |
| R841 | ERC12ZGK335D | SOLID | 0.5W | 10% | 3M3Ω | |
| R852 | ERJ6GEYJ271 | S.M.CARB | 0.1W | 5% | 270Ω | |
| R853 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R854 | ERDS1TJ474 | CARBON | 0.5W | 5% | 470KΩ | |
| R855 | ERG2FJ223 | METAL | 2W | 5% | 22KΩ | ▲ |
| R856 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |
| R857 | ERG2SJS100H | METAL | 2W | 5% | 10Ω | ▲ |
| R901 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6Ω | |
| R902 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6Ω | |
| R903 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6Ω | |
| R904 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R905 | ERJ6GEYJ681 | S.M.CARB | 0.1W | 5% | 680Ω | |
| R906 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 5% | 22KΩ | |
| R907 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R908 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R909 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |
| R910 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R911 | ERJ6GEYJ152 | S.M.CARB | 0.1W | 5% | 1K5Ω | |
| R913 | ERJ6GEYJ183 | S.M.CARB | 0.1W | 5% | 18KΩ | |
| R914 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R915 | ERJ6GEYJ182 | S.M.CARB | 0.1W | 5% | 1K8Ω | |
| R916 | ERJ6GEYJ221 | S.M.CARB | 0.1W | 5% | 220Ω | |
| R917 | ERJ6GEYJ121 | S.M.CARB | 0.1W | 5% | 120Ω | |
| R919 | ERQ14AJ390 | FUSIBLE | 0.25W | 5% | 39Ω | ▲ |
| R920 | ERQ14AJ390 | FUSIBLE | 0.25W | 5% | 39Ω | ▲ |
| R921 | ERD25TJ471 | CARBON | 0.25W | 5% | 470Ω | |
| R922 | ERD25TJ393 | CARBON | 0.25W | 5% | 39KΩ | |
| R923 | ERD25TJ393 | CARBON | 0.25W | 5% | 39KΩ | |
| R924 | ERDS1FJ390 | CARBON | 0.5W | 5% | 39Ω | ▲ |
| R927 | ERD25TJ471 | CARBON | 0.25W | 5% | 470Ω | |
| R928 | ERD25TJ5R6 | CARBON | 0.25W | 5% | 5R6Ω | |
| R929 | ERDS1FJ471 | CARBON | 0.5W | 5% | 470Ω | ▲ |
| R930 | ERD25TJ5R6 | CARBON | 0.25W | 5% | 5R6Ω | |
| R931 | ERDS1FJ390 | CARBON | 0.5W | 5% | 39Ω | ▲ |
| R932 | ERDS1FJ101 | CARBON | 0.5W | 5% | 100Ω | ▲ |
| R933 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R934 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R935 | ERQ14AJ3R9 | FUSIBLE | 0.25W | 5% | 3R9Ω | ▲ |
| R936 | ERQ1CJP331 | METAL | 1W | 5% | 330Ω | ▲ |
| R937 | ERQ14AJ100 | METAL | 0.25W | 5% | 10Ω | ▲ |
| R1203 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1204 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1205 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1206 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1208 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 5% | 22KΩ | |
| R1209 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1210 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1212 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1213 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1214 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1215 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |

| Ref No. | Part No. | Description | | | | |
|---------|-------------|-------------|-------|----|-------|---|
| R1216 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1217 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1218 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1219 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1220 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1221 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1222 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1224 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1225 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1226 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1227 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1229 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0Ω | |
| R1230 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0Ω | |
| R1231 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1232 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1233 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1235 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1236 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1237 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1238 | ERJ6GEYJ393 | S.M.CARB | 0.1W | 5% | 39KΩ | |
| R1239 | ERJ6GEYJ392 | S.M.CARB | 0.1W | 5% | 3K9Ω | |
| R1240 | ERJ6GEYJ392 | S.M.CARB | 0.1W | 5% | 3K9Ω | |
| R1241 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1242 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1244 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0Ω | |
| R1245 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R1246 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1247 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1249 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1250 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1251 | ERJ6GEYJ393 | S.M.CARB | 0.1W | 5% | 39KΩ | |
| R1252 | ERX1SJ3R3 | METAL | 1W | 5% | 3R3Ω | |
| R1253 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R1254 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100KΩ | |
| R1255 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100KΩ | |
| R1256 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |
| R1257 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1258 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7Ω | |
| R1260 | ERDS1FJ121 | CARBON | 0.5W | 5% | 120Ω | ▲ |
| R1261 | ERJ6GEYJ392 | S.M.CARB | 0.1W | 5% | 3K9Ω | |
| R1262 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8Ω | |
| R1263 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R1264 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R1265 | ERJ6GEYJ152 | S.M.CARB | 0.1W | 5% | 1K5Ω | |
| R1266 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R1277 | ERDS1TJ151 | CARBON | 0.5W | 5% | 150Ω | |
| R1281 | ERJ6GEYJ271 | S.M.CARB | 0.1W | 5% | 270Ω | |
| R1282 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R1283 | ERD25TJ750 | CARBON | 0.25W | 5% | 75Ω | |
| R2101 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2102 | ERJ6GEYJ561 | S.M.CARB | 0.1W | 5% | 560Ω | |
| R2103 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2104 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2105 | ERJ6GEYJ561 | S.M.CARB | 0.1W | 5% | 560Ω | |
| R2106 | ERJ6GEYJ183 | S.M.CARB | 0.1W | 5% | 18KΩ | |
| R2107 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2108 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R2109 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R2110 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R2111 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |
| R2301 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R2302 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R2303 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R2304 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R2313 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R2314 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R2315 | ERJ6GEYJ473 | S.M.CARB | 0.1W | 5% | 47KΩ | |
| R2316 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100KΩ | |
| R2318 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100KΩ | |
| R2321 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R2322 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2323 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |

| Ref No. | Part No. | Description | | | | |
|---------|-------------|-------------|------|----|-------|---|
| R2324 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2325 | ERJ6GEYJ273 | S.M.CARB | 0.1W | 5% | 27KΩ | |
| R2326 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2327 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2328 | ERJ6GEYJ473 | S.M.CARB | 0.1W | 5% | 47KΩ | |
| R2329 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R2330 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2Ω | |
| R2331 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 5% | 22KΩ | |
| R2332 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2333 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R2334 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0Ω | |
| R2335 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0Ω | |
| R2651 | ERG2FJ221 | METAL | 2W | 5% | 220Ω | ▲ |
| R2652 | ERG2FJ221 | METAL | 2W | 5% | 220Ω | ▲ |
| R2653 | ERDS1TJ151 | CARBON | 0.5W | 5% | 150Ω | |
| R2654 | ERDS1TJ151 | CARBON | 0.5W | 5% | 150Ω | |
| R3001 | ERJ6GEYJ153 | S.M.CARB | 0.1W | 5% | 15KΩ | |
| R3002 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3003 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3004 | ERJ6GEYJ153 | S.M.CARB | 0.1W | 5% | 15KΩ | |
| R3005 | ERJ6GEYJ470 | S.M.CARB | 0.1W | 5% | 47Ω | |
| R3006 | ERJ6GEYJ470 | S.M.CARB | 0.1W | 5% | 47Ω | |
| R3007 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% | 75Ω | |
| R3008 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100KΩ | |
| R3009 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100KΩ | |
| R3010 | ERJ6GEYJ561 | S.M.CARB | 0.1W | 5% | 560Ω | |
| R3011 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3012 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3013 | ERJ6GEYJ561 | S.M.CARB | 0.1W | 5% | 560Ω | |
| R3014 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0Ω | |
| R3015 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0Ω | |
| R3016 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R3017 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |
| R3019 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R3020 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R3022 | ERD2FCG560 | CARBON | 2W | 2% | 56Ω | |
| R3024 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R3025 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R3026 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R3027 | ERJ6GEYJ680 | S.M.CARB | 0.1W | 5% | 68Ω | |
| R3029 | ERJ6GEYJ680 | S.M.CARB | 0.1W | 5% | 68Ω | |
| R3030 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R3032 | ERJ6GEYJ680 | S.M.CARB | 0.1W | 5% | 68Ω | |
| R3034 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |
| R3036 | ERJ6GEYJ220 | S.M.CARB | 0.1W | 5% | 22Ω | |
| R3037 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% | 75Ω | |
| R3038 | ERD2FCG100 | CARBON | 2W | 2% | 10Ω | |
| R3039 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3040 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3041 | ERJ6GEYJ153 | S.M.CARB | 0.1W | 5% | 15KΩ | |
| R3042 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8Ω | |
| R3043 | ERD2FCG100 | CARBON | 2W | 2% | 10Ω | |
| R3044 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3045 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω | |
| R3046 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3047 | ERJ6GEYJ680 | S.M.CARB | 0.1W | 5% | 68Ω | |
| R3048 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1KΩ | |
| R3049 | ERJ6GEYJ680 | S.M.CARB | 0.1W | 5% | 68Ω | |
| R3050 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3051 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3052 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3053 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3054 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3055 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3056 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3057 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100Ω | |
| R3058 | ERJ6GEYJ153 | S.M.CARB | 0.1W | 5% | 15KΩ | |
| R3059 | ERJ6GEYJ153 | S.M.CARB | 0.1W | 5% | 15KΩ | |
| R3060 | ERJ6GEYJ470 | S.M.CARB | 0.1W | 5% | 47Ω | |
| R3062 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% | 75Ω | |
| R3063 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% | 75Ω | |
| R3064 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ | |

| Ref No. | Part No. | Description | | |
|---------|-------------|-------------|------|------------------|
| R3065 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% 100K Ω |
| R3066 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% 100K Ω |
| R3067 | ERJ6GEYJ273 | S.M.CARB | 0.1W | 5% 27K Ω |
| R3068 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% 10K Ω |
| R3069 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% 10K Ω |
| R3070 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% 75 Ω |
| R3071 | ERJ6GEYJ470 | S.M.CARB | 0.1W | 5% 47 Ω |
| R3150 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% 75 Ω |
| R3151 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% 75 Ω |
| R3152 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% 75 Ω |
| R3153 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% 75 Ω |
| R3154 | ERJ6GEYJ183 | S.M.CARB | 0.1W | 5% 18K Ω |
| R3155 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% 100 Ω |
| R3156 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% 100 Ω |
| R3157 | ERJ6GEYJ183 | S.M.CARB | 0.1W | 5% 18K Ω |
| R3158 | ERJ6GEYJ750 | S.M.CARB | 0.1W | 5% 75 Ω |
| R3502 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% 100 Ω |
| R3504 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% 100 Ω |
| R3505 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% 0 Ω |
| R3508 | ERJ6GEYJ183 | S.M.CARB | 0.1W | 5% 18K Ω |
| R3511 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% 10K Ω |
| R3512 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% 4K7 Ω |

| Ref No. | Part No. | Description | |
|--------------|--------------|-------------|---|
| SWITCHES | | | |
| S.351 | 0330550049 | CRT SOCKET | |
| S801 | ESB91232A | SWITCH | ⚠ |
| S1201 | EVQ23405R | SWITCH | |
| S1202 | EVQ23405R | SWITCH | |
| S1203 | EVQ23405R | SWITCH | |
| S1204 | EVQ23405R | SWITCH | |
| S1205 | EVQ23405R | SWITCH | |
| TRANSFORMERS | | | |
| T501 | 5270103200 | TRANSFORMER | |
| T801 | ETS42AP147AC | TRANSFORMER | ⚠ |
| T1201 | ETP35KAN61ZU | TRANSFORMER | |
| FILTERS | | | |
| X100 | EFCA6R5MB3 | FILTER | |
| X601 | TSS2169—B | CRYSTAL | |
| X1201 | TSS120M2 | CRYSTAL | |
| X2101 | 4730007158 | CRYSTAL | |

NOTE:

For models with the dark walnut finish please refer to the TX–28XD3F/A and TX–25XD3F/A Difference Lists.

BEMERKUNG:

Für die Modelle TX–28XD3F/A und TX–25XD3F/A, mit dunklem Holz–Design, verwenden Sie bitte die Ersatzteil–Differenzliste.

DIFFERENCES FOR MODEL TX–28XD3F

| Ref No. | Part No. | Description | |
|---------------------------------|--------------|----------------------|---|
| MISCELLANEOUS COMPONENTS | | | |
| 5) | TLK8E05125 | DEGAUSS COIL | ⚠ |
| 7) | A66ECF50X32 | CRT | ⚠ |
| 8) | TKY8E160 | CABINET | ⚠ |
| 9) | TKP8E1169 | SPEAKER NET | |
| 10) | TBX8E040 | POWER BUTTON (BLACK) | |
| 11) | TKP8E1175 | LEFT PANEL (BLACK) | |
| 12) | TKP8E1172 | TOP PANEL (BLACK) | |
| 14) | TBM8E1663 | MODEL LABEL | |
| 15) | TKU8E00320 | BACK COVER | ⚠ |
| 18) | TNP8EE008AH | E PC.B. | ⚠ |
| 23) | TKP8E1176 | RIGHT PANEL (BLACK) | |
| 24) | TKP8E1170 | DOOR LID (BLACK) | |
| | TPC8E4586 | OUTER CARTON | |
| | TPD8E633 | TOP CUSHION | |
| | TPD8E634 | BOTTOM CUSHION | |
| CAPACITORS | | | |
| C252 | ECUV1H223KBX | S.M.CAP 50V 22nF | |
| C256 | ECUV1H223KBX | S.M.CAP 50V 22nF | |
| INTEGRATED CIRCUITS | | | |
| IC1202 | 27C010–002AT | EPROM | |
| IC1203 | X24LM0401EE | EAROM | |
| TERMINALS AND LINKS | | | |
| JSE036 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω | |
| JSE038 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω | |
| RESISTOR | | | |
| R272 | ERF7ZK4R7 | WOUND 7W 10% 4R7Ω | ⚠ |
| TRANSFORMERS | | | |
| T551 | ZTFH44011A | F.B.T. | ⚠ |

DIFFERENCES FOR MODEL TX–28XD3F/A

| Ref No. | Part No. | Description | |
|---------------------------------|--------------|----------------------------|---|
| MISCELLANEOUS COMPONENTS | | | |
| 5) | TLK8E05125 | DEGAUSS COIL | ⚠ |
| 7) | A66ECF50X32 | CRT | ⚠ |
| 8) | TKY8E160 | CABINET | ⚠ |
| 9) | TKP8E1169 | SPEAKER NET | |
| 10) | TBX8E045 | POWER BUTTON (DARK WALNUT) | |
| 11) | TKP8E1184 | LEFT PANEL (DARK WALNUT) | |
| 12) | TKP8E1182 | TOP PANEL (DARK WALNUT) | |
| 14) | TBM8E1663 | MODEL LABEL | |
| 15) | TKU8E00320 | BACK COVER | ⚠ |
| 18) | TNP8EE008AH | E PC.B. | ⚠ |
| 23) | TKP8E1186 | RIGHT PANEL (DARK WALNUT) | |
| 24) | TKP8E1180 | DOOR LID (DARK WALNUT) | |
| | TPC8E4586 | OUTER CARTON | |
| | TPD8E633 | TOP CUSHION | |
| | TPD8E634 | BOTTOM CUSHION | |
| CAPACITORS | | | |
| C252 | ECUV1H223KBX | S.M.CAP 50V 22nF | |
| C256 | ECUV1H223KBX | S.M.CAP 50V 22nF | |
| INTEGRATED CIRCUITS | | | |
| IC1202 | 27C010–002AT | EPROM | |
| IC1203 | X24LM0401EE | EAROM | |
| TERMINALS AND LINKS | | | |
| JSE036 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω | |
| JSE038 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω | |
| RESISTOR | | | |
| R272 | ERF7ZK4R7 | WOUND 7W 10% 4R7Ω | ⚠ |
| TRANSFORMERS | | | |
| T551 | ZTFH44011A | F.B.T. | ⚠ |

DIFFERENCES FOR MODEL TX—25XD3F

| Ref No. | Part No. | Description | |
|---------------------------------|--------------|----------------------|---|
| MISCELLANEOUS COMPONENTS | | | |
| 5) | TLK8E05120 | DEGAUSS COIL | ⚠ |
| 7) | A59ECF50X32 | CRT | ⚠ |
| 8) | TKY8E150 | CABINET | ⚠ |
| 9) | TKP8E1168 | SPEAKER NET | |
| 10) | TBX8E040 | POWER BUTTON (BLACK) | |
| 11) | TKP8E1173 | LEFT PANEL (BLACK) | |
| 12) | TKP8E1171 | TOP PANEL (BLACK) | |
| 14) | TBM8E1655 | MODEL LABEL | |
| 15) | TKU8E00310 | BACK COVER | ⚠ |
| 18) | TNP8EE008AQ | E P.C.B. | ⚠ |
| 23) | TKP8E1174 | RIGHT PANEL (BLACK) | |
| 24) | TKP8E1170 | DOOR LID (BLACK) | |
| | TPC8E4584 | OUTER CARTON | |
| | TPD8E631 | TOP CUSHION | |
| | TPD8E632 | BOTTOM CUSHION | |
| CAPACITORS | | | |
| C252 | ECUY1H563KBX | S.M.CAP 50V 56nF | |
| C256 | ECUY1H563KBX | S.M.CAP 50V 56nF | |
| INTEGRATED CIRCUITS | | | |
| IC1202 | 27C010—002AP | EPROM | |
| IC1203 | X24LM0401ED | EAROM | |
| RESISTOR | | | |
| R272 | ERF7ZK5R6 | WOUND 7W 10% 5R6Ω | ⚠ |
| TRANSFORMERS | | | |
| T551 | KFT4AA098F | F.B.T. | ⚠ |

DIFFERENCES FOR MODEL TX—25XD3F/A


| Ref No. | Part No. | Description | |
|---------------------------------|--------------|----------------------------|---|
| MISCELLANEOUS COMPONENTS | | | |
| 5) | TLK8E05120 | DEGAUSS COIL | ⚠ |
| 7) | A59ECF50X32 | CRT | ⚠ |
| 8) | TKY8E150 | CABINET | ⚠ |
| 9) | TKP8E1168 | SPEAKER NET | |
| 10) | TBX8E045 | POWER BUTTON (DARK WALNUT) | |
| 11) | TKP8E1192 | LEFT PANEL (DARK WALNUT) | |
| 12) | TKP8E1190 | TOP PANEL (DARK WALNUT) | |
| 14) | TBM8E1655 | MODEL LABEL | |
| 15) | TKU8E00310 | BACK COVER | ⚠ |
| 18) | TNP8EE008AQ | E P.C.B. | ⚠ |
| 23) | TKP8E1194 | RIGHT PANEL (DARK WALNUT) | |
| 24) | TKP8E1180 | DOOR LID (DARK WALNUT) | |
| | TPC8E4584 | OUTER CARTON | |
| | TPD8E631 | TOP CUSHION | |
| | TPD8E632 | BOTTOM CUSHION | |
| CAPACITORS | | | |
| C252 | ECUY1H563KBX | S.M.CAP 50V 56nF | |
| C256 | ECUY1H563KBX | S.M.CAP 50V 56nF | |
| INTEGRATED CIRCUITS | | | |
| IC1202 | 27C010—002AP | EPROM | |
| IC1203 | X24LM0401ED | EAROM | |
| RESISTOR | | | |
| R272 | ERF7ZK5R6 | WOUND 7W 10% 5R6Ω | ⚠ |
| TRANSFORMERS | | | |
| T551 | KFT4AA098F | F.B.T. | ⚠ |

SCHEMATIC DIAGRAM FOR MODELS







TX-28XD3F TX-25XD3F

(Euro-2M Chassis)

IMPORTANT SAFETY NOTICE

Components identified by  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Notes

- RESISTOR**
All resistors are carbon 1/4W resistor, unless marked as follows:
Unit of resistance is OHM (Ω) (K=1,000, M=1,000,000).
- CAPACITORS**
All capacitors are ceramic 50V, unless marked as follows:
Unit of capacitance is μ F, unless otherwise stated.
- COIL**
Unit of inductance is μ H, unless otherwise stated.
- Components marked 'L' on the schematic diagram shows leadless parts.
- TEST POINT**
 : Test Point position
- EARTH SYMBOL**
 : Chassis Earth (Cold)  : Line Earth (Hot)
- VOLTAGE MEASUREMENT**
Voltage is measured by a DC voltmeter.
Measurement conditions are as follows:
Power source AC 220V-240V, 50Hz
Receiving Signal Colour Bar signal (RF)
All customer controls Maximum position
-  : Indicates the Video signal path
 : Indicates the Audio signal path
 : Indicates the Vertical/Horizontal signal path
- This schematic diagram is the latest at the time of printing and is subject to change without notice.

Remarks

- The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection. The circuit is defined by HOT and COLD indications in the schematic diagram. All circuits, except the Power Circuit, are COLD. Take the following precautions:

Precautions

- Do not touch the hot part, or the hot and cold parts at the same time, as you are liable to a shock hazard.
- Do not short-circuit the hot and cold circuits as electrical components may be damaged.
- Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously, as this may cause fuse failure. Connect the earth of the instruments to the earth connection of the circuit being measured.
- Make sure to disconnect the power plug before removing the chassis.

ZEICHENERKLÄRUNG FÜR MODELL







TX-28XD3F TX-25XD3F

(Euro-2M Chassis)

WICHTIGER SICHERHEITSHINWEIS

Teile, die mit einem Hinweis  gekennzeichnet sind, sind wichtig für die Sicherheit. Sollte ein Auswechseln erforderlich sein, sind unbedingt Originalteile einzusetzen.

Anmerkung

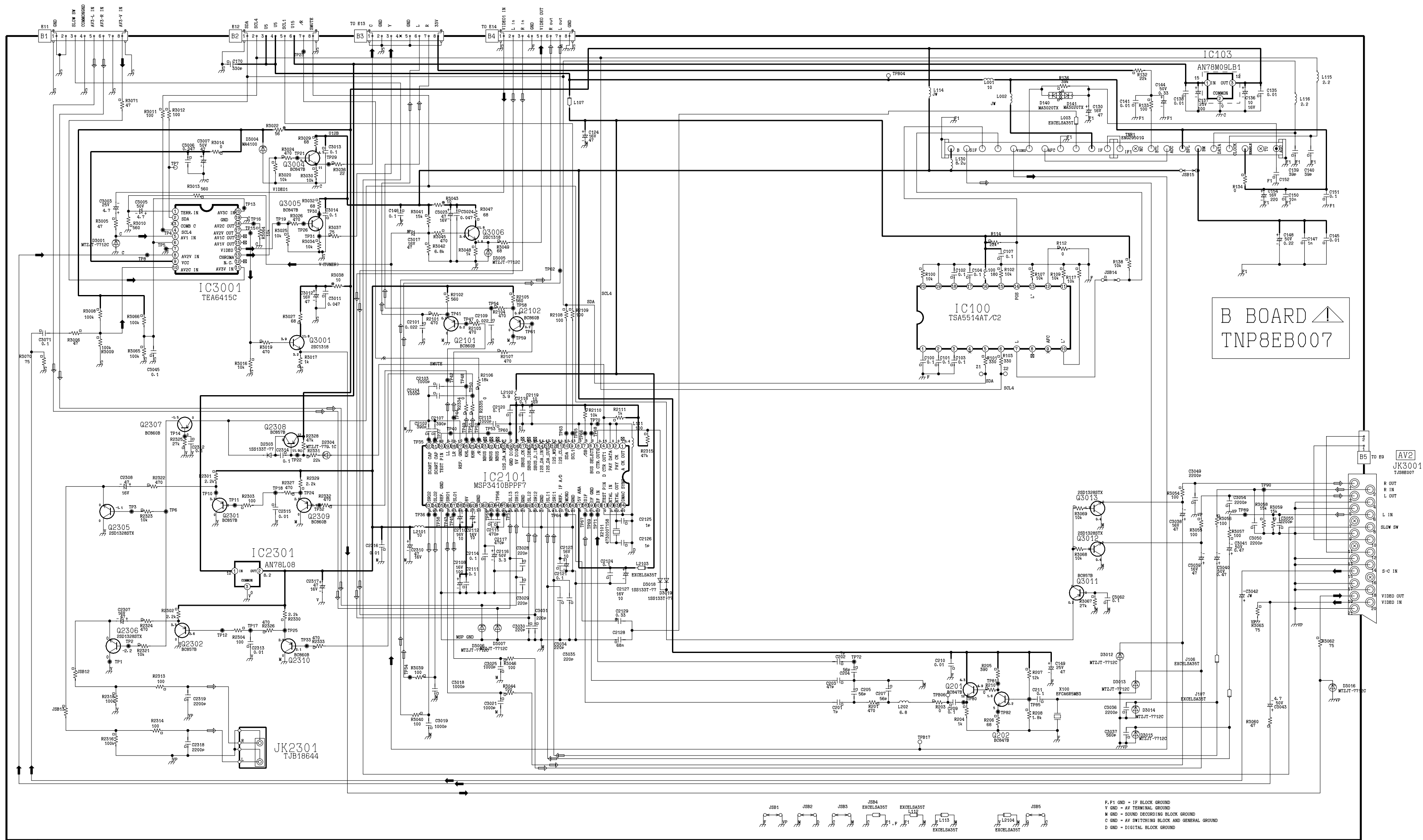
- WIDERSTÄNDE**
Alle 1/4Watt Widerstände sind Kohlewiderstände, Abweichungen sind folgt gekennzeichnet.
Die Maßeinheit ist OHM (Ω) (K=1,000 M=1,000,000)
- KONDENSATOREN**
Alle Kondensatoren sind Keramikausführungen
Spannungsfestigkeit 50V. Abweichungen sind wie folgt gekennzeichnet.
Die Maßeinheit ist μ F, wenn keine anderen Bezeichnungen genannt sind
- SPULEN**
Die Maßeinheit ist μ H, Abweichungen sind gekennzeichnet.
Mit 'L' gekennzeichnete Teile sind ohne Anschlußdrähte.
- TESTPUNKTE**
 : Kennzeichnung der Testpunktposition
- MASSE SYMBOL**
 : Erdung am Chassis  : Erdung an Masse-Leitung
- SPANNUNGSMESSUNG**
Spannungsmessungen sind mit einem DC-Voltmeter durchzuführen. Die Meßbedingungen sind folgende:
Netzspannung AC 220V-240V 50Hz
Wiedergabe Signal Farbbalken-Testbild
Alle übrigen Einstellungen für Benutzer Sollangaben
-  : Videosignalweg
 : Audiosignalweg
 : Signalweg für Hor/Vert. Synchronsignale
- Änderungen im Laufe der Fertigung sind möglich.

Bemerkungen

- Das Schaltnetzteil enthält Bereiche, die direkt mit dem Netz verbunden sind. Diese Bereiche sind im Schaltplan mit HOT gekennzeichnet. Alle anderen Schaltungen sind mit COLD gekennzeichnet und haben keine direkte Verbindung mit dem Netz.

Für den netzverbundenen Bereich (HOT) sind folgende Vorsichtsmassregeln zu beachten:

- Weder die Leitungen im heißen noch Leitungen im kalten Bereich gleichzeitig berühren. Es besteht die Gefahr eines elektrischen Schlages.
- Keinesfalls die Leitungen im heißen Bereich mit denen im kalten Bereich verbinden oder kurzschliessen. Dies kann zur Zerstörung von Bauteilen oder Sicherungen führen. Außerdem ist die elektrische Betriebssicherheit des Gerätes nicht mehr gegeben.
- Keine Messinstrumente gleichzeitig an Leitungen im heißen und kalten Bereich anschliessen. Sicherungen könnten zerstört werden. Die Erde des Messinstrumentes immer mit der des zu prüfenden Schaltkreises verbinden.
- Vor Ausbau des Chassis, Stecker aus der Netzsteckdose ziehen.

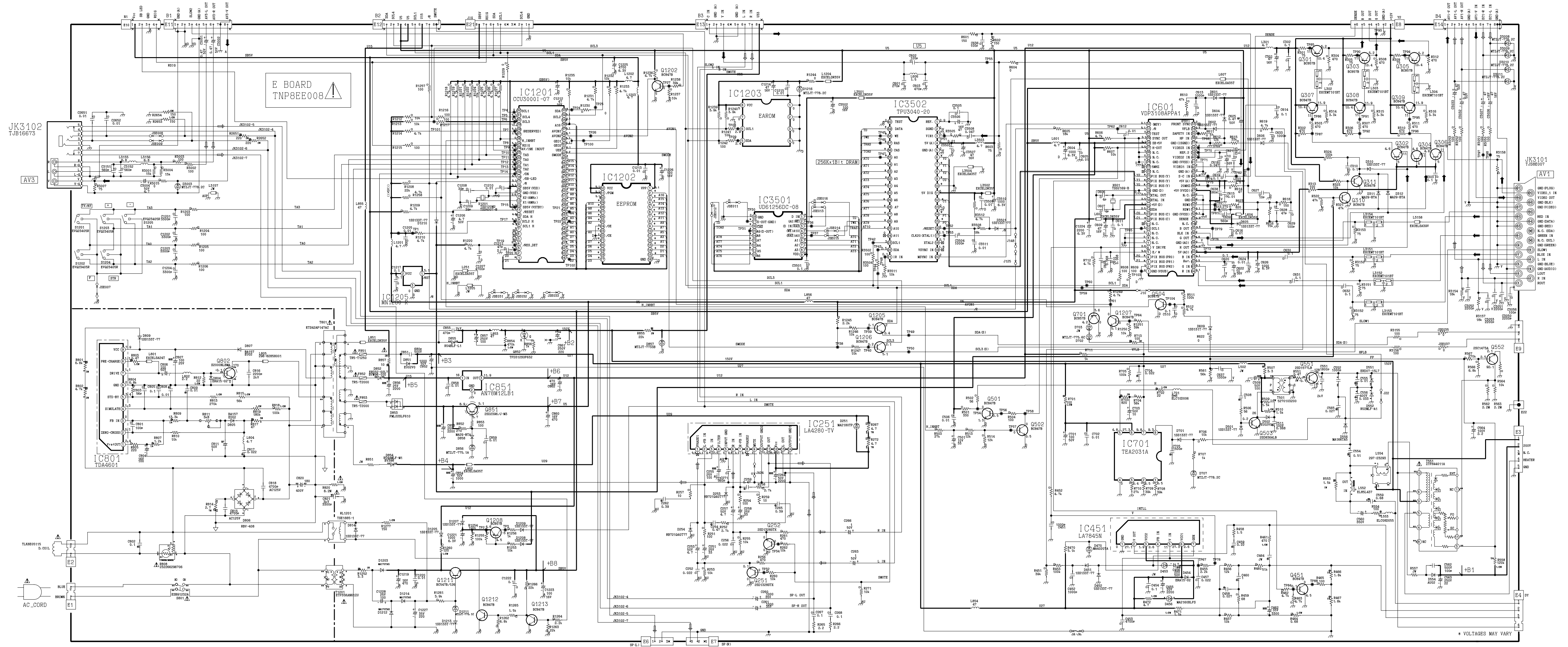


B BOARD ⚠
TNP8EB007

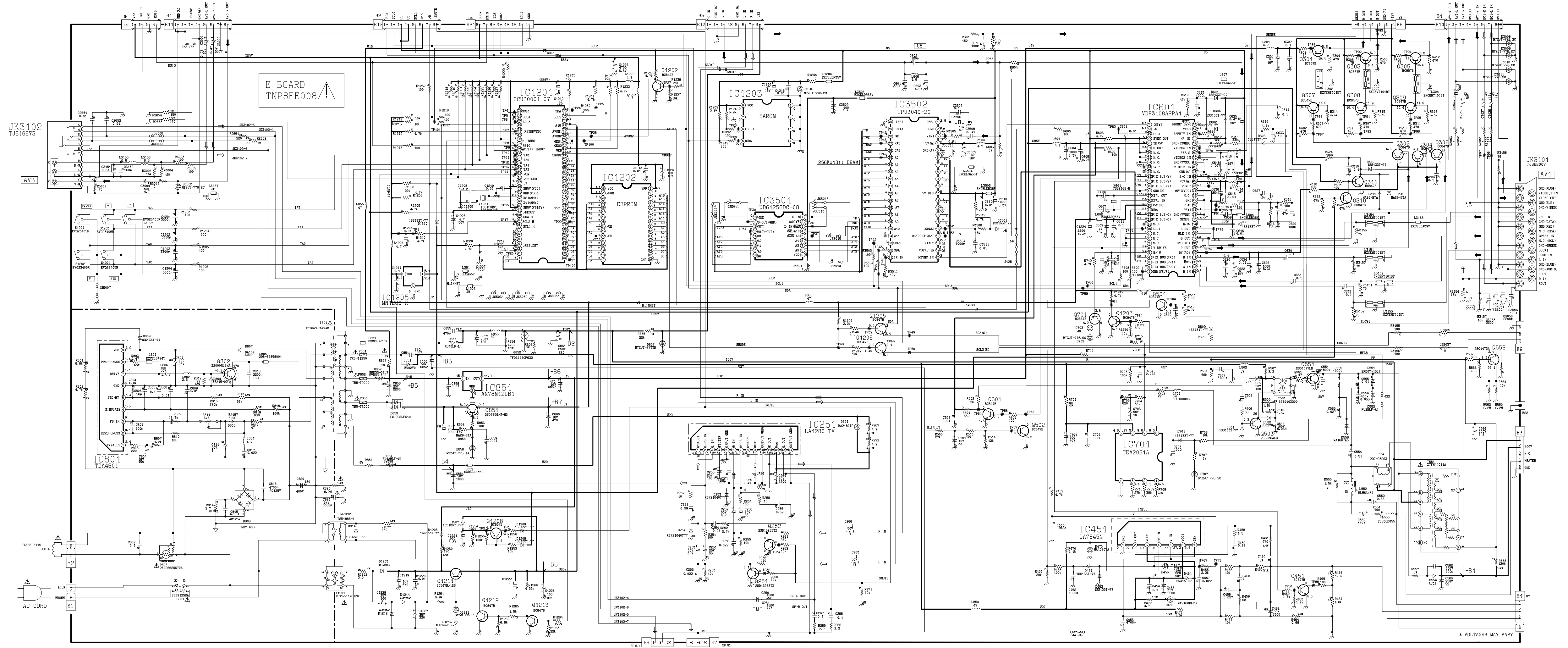
AV2
JK3001
TJSEB007

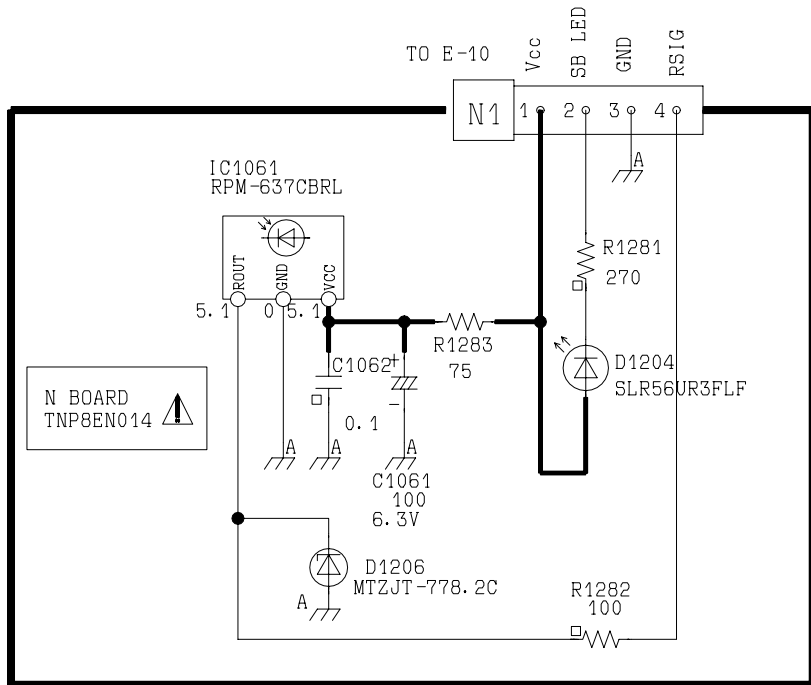
F.F1 GND = IF BLOCK GROUND
V GND = AV TERMINAL GROUND
M GND = SOUND DECODING BLOCK GROUND
C GND = AV SWITCHING BLOCK AND GENERAL GROUND
D GND = DIGITAL BLOCK GROUND

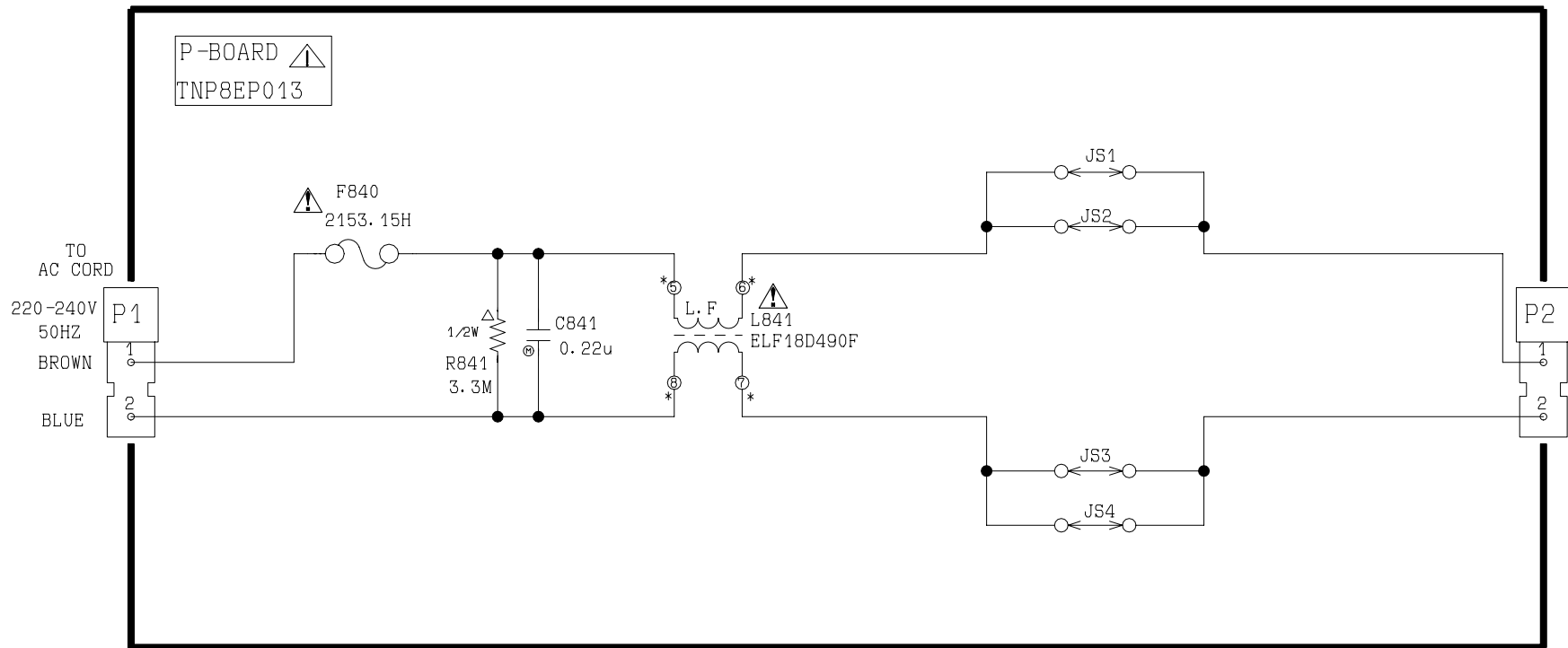
TX - 28XD3F E BOARD

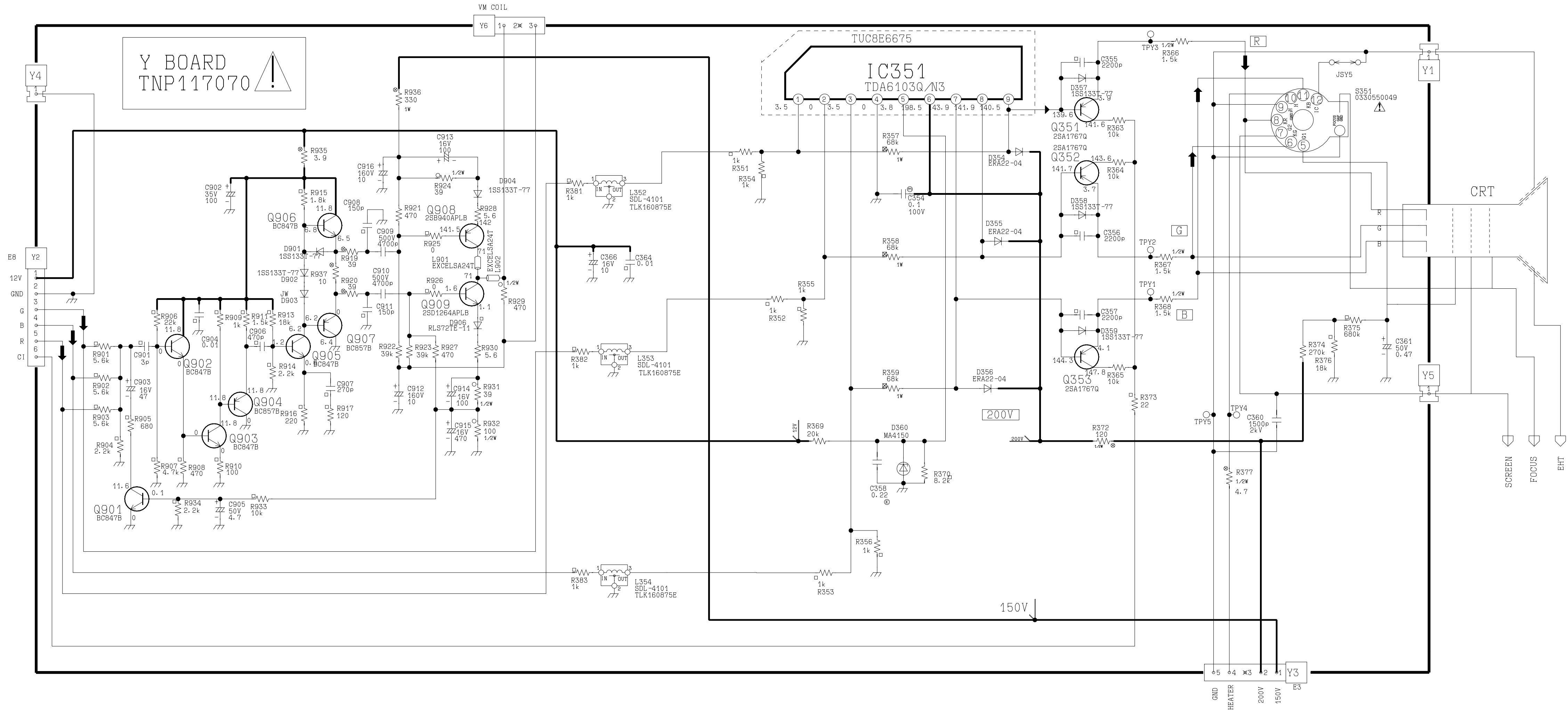


TX - 25XD3F E BOARD









YNP9B007

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